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COMPILATION OF THE ENERGY SECURITY
ACT OF 1980, AND 1980 AMENDMENTS TO
THE DEFENSE PRODUCTION ACT OF 1950

COMMITTEE ON
BANKING, FINANCE AND URBAN AFFAIRS
HOUSE OF REPRESENTATIVES

96th Congress, Second Session



PART 2

SEPTEMBER 1980



Printed for the use of the
Committee on Banking, Finance and Urban Affairs

This report has not been officially adopted by the Committee on
Banking, Finance and Urban Affairs and may not therefore neces-
sarily reflect the views of its members.

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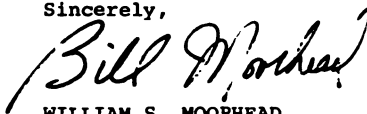
WASHINGTON: 1980

July 3, 1980

11. Report of the Committee on Banking, Finance and Urban Affairs, U. S. House of Representatives, to accompany H.R. 3930, May 15, 1979. (H. Rept. 96-165)
12. Report of the Committees on Banking, Housing and Urban Affairs and Energy and Natural Resources, U. S. Senate, to accompany S. 932, October 30, 1979. (S. Rept. 96-387)
13. Report of the Committee on Banking, Housing and Urban Affairs, U. S. Senate, to accompany S. 932, May 15, 1979. (S. Rept. 96-166)

This collection is designed to meet the many requests which the Committee is receiving from Members, their staffs, and the public for information and the legislative history on the provisions contained in Public Law 96-294.

Sincerely,

A handwritten signature in black ink, reading "Bill Moorhead". The signature is written in a cursive, flowing style.

WILLIAM S. MOORHEAD
Chairman

(IV)

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7. DEBATE IN THE U.S. HOUSE OF REPRESENTATIVES ON H.R. 3930 (SUBSEQUENTLY S. 932), JUNE 26, 1979

DEFENSE PRODUCTION ACT AMENDMENTS OF 1979

Mr. DODD. Mr. Speaker, by direction of the Committee on Rules, I call up House Resolution 324 and ask for its immediate consideration. The Clerk read the resolution, as follows:

H. RES. 324

Resolved, That upon the adoption of this resolution it shall be in order to move, section 401(a) of the Congressional Budget Act of 1974 (Public Law 93-344) to the contrary notwithstanding, that the House resolve itself into the Committee of the Whole House on the State of the Union for the consideration of the bill (H.R. 3930) to amend the Defense Production Act of 1950 to extend the authority granted by such Act and to provide for the purchase of synthetic fuels and synthetic chemical feedstocks, and for other purposes, and the first reading of the bill shall be dispensed with. After general debate, which shall be confined to the bill and shall continue not to exceed one hour, to be equally divided and controlled by the chairman and ranking minority member of the Committee on Banking, Finance and Urban Affairs, the bill shall be read for amendment under the five-minute rule. At the conclusion of the consideration of the bill for amendment, the Committee shall rise and report the bill to the House with such amendments as may have been adopted, and the previous question shall be considered as ordered on the bill and amendments thereto to final passage without intervening motion except one motion to recommit.

The SPEAKER pro tempore. The gentleman from Connecticut (Mr. Dodd) is recognized for 1 hour.

Mr. DODD. Mr. Speaker, I yield 30 minutes to the gentleman from Tennessee (Mr. Quillen) for the purpose of debate only, pending which I yield myself such time as I may consume.

(Mr. Dodd asked and was given permission to revise and extend his remarks.)

Mr. DODD. Mr. Speaker, House Resolution 324 provides for the consideration of H.R. 3930, the Defense Production Act Amendments of 1979. It provides for an open rule with 1 hour of debate to be equally divided and controlled by the chairman and ranking minority member of the Committee on Banking, Finance and Urban Affairs. It waives section 401(a) of the Budget Act which prohibits consideration of bills which contain contract authority in excess of levels established in the most recent budget resolution. The rule also provides for one motion to recommit.

Mr. Speaker, H.R. 3930 represents congressional initiative to reduce U.S. dependence on imported oil by encouraging the production of nonpetroleum synthetic fuels from coal, shale rock, and organic waste. The bill would extend the Defense Production Act of 1950 for 1 year and grant authority to establish a joint Government-private industry program for the development of synthetic fuels and synthetic chemical feedstocks for national defense purposes.

The technology for the production of synthetic fuels is already available particularly from synthesizing gasoline from coal and for making wood alcohol. During World War II, Germany used synthetic fuels made from coal. However, the anticipated cost of producing synthetic fuels is higher than the current world price of oil. The committee has supported financial incentives for industry participation in the program in order to achieve the national production goal for national defense purposes of at least 500,000 barrels per day of synthetic crude oil by 1985.

The administration has endorsed the development of synthetic fuels in budget proposals and the President has suggested that some revenues from the proposed windfall profits tax on oil be used for the program. H.R. 3930 is supported by the Speaker, House majority leader, majority whip, the Democratic Steering and Policy Committee and others.

The bill would also: Raise the dollar limits on the value of direct and indirect loans, broaden the applicability of the Defense Production Act of 1950 to specifically include energy, establish guidelines for awarding contracts, and authorize appropriations of \$2 billion to achieve the production goal through purchase guarantees.

Similar proposals for synthetic fuels subsidies were introduced during the 95th Congress but were not enacted. Provisions which spurred a jurisdictional dispute in 1976 between the Committees on Ways and Means, Interstate and Foreign Commerce, Science and Technology and the Banking Committee have been deleted from H.R. 3930.

Mr. QUILLEN. Mr. Speaker, I yield myself such time as I may consume.

(Mr. Quillen asked and was given permission to revise and extend his remarks.)

Mr. QUILLEN. Mr. Speaker, the gentleman from Connecticut (Mr. Dodd), has ably explained the resolution. We are here today on this synthetic fuel bill because the American people have demanded action by the Congress that something be done. It is long overdue.

I am very happy that it is on the floor today, because it is so important that we develop synthetic fuels and chemical feedstocks.

The bill calls for 500,000 barrels of synthetic fuels per day. That would almost take care of the defense needs of this country when it comes into effect in 1984, but 500,000 barrels of synthetic fuels is not enough.

I understand some amendments are going to be offered to increase the number of barrels per day, and I shall support them.

One can go anywhere in this country of ours and see long lines of people queued up and waiting to get to the gasoline tanks for gasoline.

I think that the Congress and the White House should have taken action years ago to do just exactly what we are doing now.

We have a coal supply that will last for more than 300 years, and we ought to be tapping it. We ought to be using it to its fullest extent. We ought to be letting the utilities of this country burn coal to produce electricity.

We should be making gasoline and oil from coal, as did the Germans, as now they are doing in South Africa.

So the action brought about today is action demanded by the American people.

Mr. Speaker, I support the bill.

Mr. DODD. Mr. Speaker, I yield 5 minutes to the gentleman from Kentucky (Mr. Perkins).

(Mr. Perkins asked and was given permission to revise and extend his remarks.)

Mr. PERKINS. Mr. Speaker, I rise in support of the resolution and support the bill. Mr. Speaker, the gravest danger facing the United States today, both militarily and economically, is in its reliance upon an interruptible supply of imported oil.

This country's whole economy is based upon its consumption of energy. But today half of our liquid fuel is supplied by other nations—some of whom are unfriendly and potentially hostile.

Recent testimony before the Subcommittee on Economic Opportunity by a well-known chemical engineer indicated that one supertanker sunk by saboteurs in the narrow channel through Hormuz Strait could effectively bottle up half the oil that passes from the Persian Gulf to the free nations of the West. That includes shipments from Iran, Saudi Arabia, Kuwait, and other areas.

Even a temporary interruption of supplies from that region would have far-reaching repercussions in the American economy. It is probable that a great many jobs held by American men and women would simply evaporate.

The longer the interruption, the more drastic the economic dislocation.

Reliance upon foreign sources for such a significant portion of our energy needs already has robbed the United States of its freedom of action in many areas of foreign policy. Our policy decisions are vulnerable to international blackmail by our petroleum suppliers.

Our national security is jeopardized, and the continued outflow of upwards of \$50 billion a year for foreign oil purchases will surely bring ruin to our economy.

Because of this situation, I welcome and support the efforts that have been made by Chairman Moorhead and the Subcommittee on Economic Stabilization, and by its parent committee. I urge the House to pass without delay H.R. 3930, the Defense Production Act amendment and extension.

By directing the startup of a synthetic fuels industry based upon coal, shale, peat, and the other domestic resources, the committee is moving us in the direction of energy independence.

My only regret is that the measure before us starts us toward energy self-sufficiency at a crawl when we should be going at a full gallop.

I recognize that the measure reported by the committee addresses only one small segment of our total energy needs. It deals with the half-million barrels a day of crude oil equivalent required by our peacetime defense systems.

But our domestic economy uses at least 18 million barrels of crude oil a day—and we are at the mercy of foreign producers, the OPEC brethren, to sell us half of that, at their price.

I will vote for this bill gladly, but I don't have any illusion that it provides any substantial contribution to our overall energy requirement.

Even if it succeeds to the full limit of the committee's expectation, it will not shorten the gasoline lines by one car or one-quarter hour.

It is important to understand that this measure deals with military needs. The synthetic fuel that it will produce is not going to show up in our neighborhood gasoline pumps.

If the parliamentary situation were such that this measure could be amended to address the energy needs of the civilian segment of the economy, I would certainly have several strengthening amendments to propose.

The fact that the committee is limited by its jurisdiction to getting at synthetic fuels creation through the Defense Production Act of 1950 illustrates the reason for the House's seeming paralysis to act decisively on the energy issue.

There must be a dozen committees of the House with some legitimate claim of jurisdiction over one or more parts of a bona fide synthetic fuels industry bill.

Now, I know it is the tradition of the House for committees to guard their jurisdictions jealously. The Committee on Education and Labor guards its own. This is not without reason as legislation should be formulated where there has been developed an indepth knowledge of the subject area. At the same time the House should use every means at its disposal to cut through parliamentary redtape when it must legislate promptly in a national emergency.

But I want to say to the Members that this matter of internal house-keeping does not mean a thing to the vast majority of the people of this country. They could not care less.

They know that Congress is not going to get very far on a tank full of jurisdiction. And if we do not switch to something that will burn in a combustion engine—the people might just switch for us.

As many of you know, the Committee on Education and Labor this week will attempt to report H.R. 4514, the Synthetic Fuels Reserve Corporation Act. The bill already has been approved unanimously by the Subcommittee on Economic Opportunity.

This broad-gaged measure sets a goal of 5 million barrels of synthetic fuels a day equivalent. And it sets up the mechanism for accomplishing the task.

There is no question that it cuts across House jurisdictional lines. But someone has to do something to cut through this paper-and-tradition barricade and get a bill before the House that will make a real dent in our energy situation.

Our bill in no way conflicts with the measure before us today, nor does this bill conflict with H.R. 4514. This bill confines itself to synthetic fuels for military needs while ours expands across the whole economy.

To give the House an opportunity to strike two blows for energy independence at once, I wish it were possible to offer the text of H.R. 4514 as an amendment to this bill, but I am advised that it would not be germane. I certainly shall try to persuade the Committee on Rules to give the House an opportunity to vote on it at an early date.

Mr. Speaker, there is great interest in this body in synthetic fuels as an alternative to our present intolerable situation. Bills addressing that subject are now reckoned by the dozen.

There is no question about the practical application of synthetic fuels technology. It is available, and it is proven.

In my judgment, synthetic fuels provide the only satisfactory alternative to the energy blackmail with which we now live.

I urge the House to take a step toward energy independence and pass the Moorhead bill today. And then, as soon as possible, let us get up and run at a gallop and pass a comprehensive synthetic fuels bill.

Mr. QUILLEN. Mr. Speaker, if we go back in our minds today and see what this country did when we ran out of natural rubber for the manufacture of automobile tires and tires for military equipment, the Government started a massive program for synthetic rubber. Within a few months we had synthetic rubber that took care of our needs during the war years and is taking care of our needs now.

We can do it. This is a beginning. We must pass this legislation.

We can go into our shale deposits, we can produce shale oil and refine it into gasoline to meet our needs. We can create chemical synthetic fuels from grain. We can do whatever we have to do.

Go back to another project during the war when the Manhattan project was conceived at Oak Ridge. No one except a very few knew what was going on. But through a massive effort this country developed the atomic bomb, and then the hydrogen bomb later. This country can do whatever it wants to do if we set our minds to do it.

Mr. Speaker, I yield 5 minutes to the gentleman from Texas (Mr. Paul).

(Mr. Paul asked and was given permission to revise and extend his remarks.)

Mr. PAUL. Mr. Speaker, I rise in opposition to both the rule and this bill. I believe this bill is ill-conceived, it is brought up under a sense of hysteria in this country today. I would like to label this bill the economic Tonkin Gulf resolution.

People are responding today to the shortage. We know why the shortage is here. The shortage is here because the Government has been overly involved in the energy industry. It took us a lot of years to get to the point of destroying the delivery of services such as energy. Yet, we want to start a new industry with the Government hand on top of the industry at its inception.

I do not think it will be successful. If it is, it will be surely beneficial for some industrial corporation.

It is frequently pointed out that the rubber industry is an example of beneficial Government involvement. Rubber was developed synthetically and it was a tremendous boon to the country with the assistance of Government. This is true to a degree. But, the know-how was developed by the free market prior to the time the mass production was begun. And who says it would not have been developed if the Government had not subsidized it, and who has ever calculated the benefit of big business who received these subsidies even back at that time? I claim synthetic rubber would have been developed even without subsidies.

There is a bit of confusion here too. I think it is rather remarkable that a bill of this nature comes out of the Banking Committee. Here we have a Defense Production Act, and an energy bill coming out of the Banking Committee. I am on the Banking Committee. I thought I was going to be working with banking matters, but here we are with

a bill dealing in defense production and synthetic fuels coming out of the Banking Committee. It is very, very strange indeed.

Mr. SYMMS. Mr. Speaker, would the gentleman yield on that point?

Mr. PAUL. Yes, I yield to the gentleman.

Mr. SYMMS. I think the reason it is significant is because they are going to bank this thing with printing press money, and that is consistently what the Banking Committee has been doing for the last 25 years.

Mr. MOORHEAD of Pennsylvania. Mr. Speaker, will the gentleman yield.

Mr. PAUL. I am glad to yield.

Mr. MOORHEAD of Pennsylvania. I am reading now from the Rules of the House of Representatives concerning the jurisdiction of the Committee on Banking, Finance and Urban Affairs which includes under subsection 5:

Economic stabilization, defense production, and (7) financial aid to commerce and industry (other than transportation).

Mr. PAUL. If I can regain my time, I would have to say I agree that technically they are able to legislate in this manner. But, it is rather ironic that we are doing it this way.

I would like to discuss, for a few moments the Defense Production Act. This was established in 1950. Later on I would like to talk more about why I think it is ill conceived for Government to subsidize industries to develop synthetic fuels. I happen to be one who is very much in favor of synthetic fuels. However, I happen to believe that there are two ways of doing this. One is with an economy totally controlled and regulated and subsidized by Government; that is, at the expense of the taxpayers, where all the risks rest upon the taxpayers; the other is through the market economy. The market method of development of synthetic fuels is the only fair and equitable and sensible and economic way of achieving success.

We are about to extend the Defense Production Act, which was written in 1950 and which we are extending today. I think it would be wise for us to at least pay attention to this because I have published in the Record the details of the 1950 law. I think it would be very important that we know a little bit more about what we are extending.

Let me just state here the confusion that exists between war and peace, military and nonmilitary, defense and non-defense and indicates to me that we are well on our way to the confusion of thoughts so vividly portrayed in Orwell's "1984." I vigorously object to the selling of a synthetic fuels program in the name of defense. It has been proven rather recently by one of DOE's studies although not available to us for strange reasons, that if you would allow prices to fluctuate and rise we would increase our supplies by 600 or 700 percent. I believe it is totally unnecessary and unwise for the Government to go into the development of synthetic fuels.

In saying this, however, it does not exhaust the issue. H.R. 3930, by extending the Defense Production Act for 1 year, incorporates by reference the language of the 1950 act, and I quote from that for the benefit of those who have not read it:

In view of the present international situation and in order to provide for the national defense and national security, our mobilization effort continues to

require some diversion of certain materials and facilities from civilian use to military and related purposes.

That sounds rather benign. I have an extensive summary here that I will be glad to let anybody see, but I would like to summarize a little bit more on what is in this bill.

The list of powers granted to the President is extraordinary. Nowhere in the act is the President required to declare a national emergency. In certain isolated cases the Congress may veto special actions of the President, but there is no necessity to seek any prior permission from Congress at all.

The SPEAKER pro tempore. The time of the gentleman has expired.

Mr. QUILLEN. Mr. Speaker, I yield the gentleman from Texas 2 additional minutes.

Mr. PAUL. By extending this act another year the House will be approving, No. 1, standby rationing authority, which has been overwhelmingly rejected by this House. Also it will be approving standby allocation authority, assumption of risk taken by banks and other lending institutions, unlimited loans to private corporations, the prohibition, with criminal penalties of hoarding, whatever that means, forcing private persons to accept contracts and then to perform them.

Can you imagine? This is what we are talking about today, making subsidy payments to corporations for operating transportation, storage, processing and refining facilities, installing Government-owned equipment in privately owned businesses and developing synthetic materials. All of these things we are giving sanction to and I think it is rather dangerous that we are carelessly extending these powers to the executive branch.

Mr. SYMMS. Mr. Speaker, will the gentleman yield?

Mr. PAUL. I will yield to the gentleman.

Mr. SYMMS. If the gentleman has completed his statement, I would like to compliment the gentleman from Texas on his insight in this matter. I think it is really interesting that here we are talking about creating synthetic money to finance a new way to solve an energy crisis that has been caused by the membership of this body over these past many years, when tomorrow or the next day it is my understanding the House will have before it a way to take money away from people who are in the production of energy; that is, increased taxes on production. In other words, what we are watching here is a rapid takeover of the energy industry in the United States by the Government.

What other things can we look at, what is it the Government has done so well in their other endeavors that makes us think somehow a Government energy company is going to solve the crisis when the Government has caused it? Price control on natural gas, the price controls on old oil, regulations that make it either illegal to burn or illegal to mine coal. I could just go on ad infinitum. It is the Government that has created the production crises we are now in.

The SPEAKER pro tempore. The time of the gentleman from Texas has expired.

Mr. QUILLEN. Mr. Speaker, I yield 5 minutes to the gentleman from Idaho (Mr. Symms).

(Mr. Symms asked and was given permission to revise and extend his remarks.)

Mr. SYMMS. I think what is happening here is there are many people with very, very good intentions who are trying to do something to solve the quote, unquote energy production crisis that has been brought about by Government.

It reminds me of an old fellow at home that when walking down the trail he saw a snake. He decided he better kill the snake, so he jumped down to pick up a stick to kill the snake. But when he picked up the stick, he found out the stick he grabbed was actually the snake, and the snake that he thought he had seen was only a stick.

I think this is exactly what is happening here. The Congress feels the pressure from the folks back home, they have to do something to solve the problem so that they can go home and say we are solving the quote, unquote energy crisis. They do not bother to tell the folks that we caused the energy crisis.

I would like to say to the Members of the majority party that there is legislation before this very Congress in my good Chairman Udall's committee that would outlaw leasing a coal lease to somebody who happened to be in the oil business. In other words, punish them for trying to solve the energy crisis.

Here we have another situation where we are going to get in there and loan them money, guarantee loans, get this thing going. But what is going to happen from it?

Are we going to create a Government energy company? Is that what we are talking about? Are we talking about nationalizing the oil companies? If the tax bill passes this week, it will be putting on a 70-percent tax, and it must be called nothing other than a severance tax on the production of energy. It is the most anti-incentive program I have heard of, and here we are trying to create a government incentive.

What we should do, rather than trying this Government energy loan guarantee program and giving all this new regulation, is to start repealing laws, revising laws, reforming laws by primarily removing the obstacles to production and reinstilling the incentive system back in the United States.

If we do that, this energy production crisis will soon be something that we will read about in our past history, because it will be taken care of by the genius of the American entrepreneurs if we just allow the system to work and remove the obstacles. Repeal, repeal, repeal.

Mr. DODD. Mr. Speaker, I yield 3 minutes to the gentleman from Florida. (Mr. Gibbons).

Mr. GIBBONS. Mr. Speaker, I support this rule; I support the committee bill. Let me tell the Members why.

We have come to the point in our history where we have got to complaining and start acting. For many years, we have stayed and thought that this problem would solve itself, and we pretty much left it in the hands of the people who were in the energy business power to solve these problems. There were some inhibitions, but overriding inhibitions.

Not 50 years ago, in Germany, I. G. Farben patented synthesis from coal. World War II was largely fought, from the German point of view, on this same fuel, and they fought it quite effectively with a great amount of petroleum product at their command.

Ten years ago, on the Ways and Means Committee, I asked the people who were going to develop shale oil what kind of price it would take on shale oil to develop shale oil. They told me that a price of \$8.00 a barrel would be plenty sufficient to develop shale oil. These were the people from the shale oil country who were interested in developing it. They were not wild-eyed people, but honest to God, hard-nosed businessmen. Here, 10 years later, we are not producing shale oil.

The time has come when we must act. We must act affirmatively. I hear talk about synthetic money and talk about not being able to pay for this. Let me remind everyone here that by the year 1985 we will be paying, in 1979 valued dollars, to the OPEC countries at least \$110 billion a year. That is how much the outflow will go to. That, in effect, is a tax upon the U.S. economy and the U.S. taxpayer.

We must do all that we can to eliminate that. We cannot eliminate it completely, but at least we could try to get it under control. I believe, as Mr. Perkins has said and as others have said, that this is a good beginning, even though it is a small beginning.

Mr. Speaker, I hope that the Congress will act affirmatively to provide the encouragements that we need to develop synthetic fuel.

Mr. DODD. Mr. Speaker, first of all I want to compliment the gentleman from Florida on his statement, and associate myself with his remarks.

Mr. Speaker, I yield 2 minutes to the gentleman from New York (Mr. Peyser).

(Mr. Peyser asked and was given permission to revise and extend his remarks.)

MR. PEYSER. Mr. Speaker, I want to rise in support of this legislation and urge its passage, and also to state that just a couple of days ago I had joined with the chairman of the Committee on Education and Labor, the gentleman from Kentucky (Mr. Perkins) in the support of his bill dealing with synthetic fuels, which I hope we are going to be able to also move ahead on.

I thought one comment was appropriate that I heard this morning from a friend of mine who spent a couple of hours on a gas line. He said to me, "You know, if the Congress was only doing something, even if it were long-term, to address this fuel problem, it would make it a lot easier waiting in these gas lines knowing that there was—if you will forgive the expression—a light at the end of the tunnel, and that there was hope for us."

"Because," he said, "many people are giving up hope that anything is ever going to happen to correct this situation."

I think this is a definite ray of hope, and it is the way we ought to be moving. I would like to see us moving much faster in this direction and in a much larger way, but certainly this is the step that moves us into an area where we can get synthetic fuel, where we can begin to end our reliance and dependence on the OPEC countries.

Mr. Speaker, I urge the overwhelming support and passage of this bill.

MR. QUILLEN. Mr. Speaker, I yield myself such time as I may consume.

Mr. Speaker, we all must realize that this is an extension of the Defense Production Act, and the defense of this country is most important. As I said recently on the floor of the House with Russia build-

ing up her fleet in the Persian Gulf and in the Indian Ocean, where the oil supply travels through, if something should occur I do not know what this Nation would do to defend itself. So, getting going on a program to develop synthetic fuels is not only a good thing; it is the right thing to do.

Mr. ADDABBO. Mr. Speaker, will the gentleman yield?

Mr. QUILLEN. I will be happy to yield to the gentleman from New York.

Mr. ADDABBO. Mr. Speaker, I commend the gentleman from Tennessee for making that statement. We read in the papers and know that the defense establishment, right now, its training program possibly has to draw down more reserves at the present time, so we can understand what might happen in terms of an emergency. So, I believe the gentleman is speaking to a very important point on this legislation, and I commend him.

Mr. Speaker, I rise in strong support of the most comprehensive development program for synthetic fuel that we can pass on this floor today. I believe the time has come when the Congress must move quickly to end our national dependence upon fuels produced by other nations.

While this program is only another step toward energy independence, it is certainly an important one. New York City will require huge amounts of fuel oil in the next decade if it is to produce the basic electricity that is required to meet the needs of its citizens. Presently, 62 percent of the fuel used to generate electricity in New York is fuel oil, most of which—about 120,000 barrels per day—is imported. A year ago this oil cost \$13.50 per barrel. Today, the newspapers tell us that in the coming weeks we can expect that we will be paying \$20 or more per barrel.

Even if Consolidated Edison, the city's electrical producer, were to be successful in converting three oil-fired units to coal, some 24 percent of the required fuel will still have to be generated by a liquid fuel. That means that we are faced either with importation at black-mail prices or with the need to develop synthetic fuels.

Last year Consolidated Edison tested 6,000 barrels of gasified coal and found that it burned as effectively as fuel oil and burned more cleanly than low sulfur fuel. Con Ed would love to use this as its primary fuel, but at our present rate of development, the synthetic fuel—SRC-II—will not be ready for commercial development until the late 1980's.

It seems to me that this story can be repeated in every urban area in America. We have plenty of coal in this country and we ought to be developing it as quickly as possible. The Japanese have shown us that we can end our dependence on oil while at the same time keep from contaminating the air.

It is time, Mr. Speaker, that we began to get serious about resolving the problems of energy that are quickly bringing us as a nation to our knees. I hope that the House not only votes this bill out overwhelmingly but that the administration uses every bit of persuasion available to it to assure that the Senate follows our lead expeditiously.

Mr. QUILLEN. I thank the gentleman for his contribution. Only this past weekend the Air National Guard in my district had to cancel

a number of flights for lack of fuel—the Air National Guard, an arm of our military. If we continue to dilly-dally here on the floor of the House and not get started with programs that are long overdue, then the American people are going to speak even louder, in crystal clear language that we can all understand next November. So, I commend the committee for bringing this bill to the floor of the House, not only for getting new action to make synthetic fuels, but for the use of those synthetic fuels for our defense posture. It is important; it is mandatory; it is a must.

Mr. Speaker, I yield 5 minutes to the gentleman from California (Mr. Lungren).

(Mr. Lungren asked and was given permission to revise and extend his remarks.)

Mr. LUNGREN. Mr. Speaker, I rise in support of the rule to the extent that this will allow us more opportunity to fully debate on the bill brought before us.

Mr. Speaker, if my instincts are accurate, we will probably pass this legislation shortly and then pat ourselves on our collective backs for so determinedly facing the harsh realities of the energy-starved world. And, the congressional news letters proclaiming this great victory will begin to roll off the presses.

But, really, who are we fooling? This legislation is being hailed this afternoon as Congress wise and well-timed response to the latest energy crisis. Although it may be somewhat beneficial, it is also an exercise in futile symbolism. It is a symbol of this institution's inability or unwillingness to cope with an energy crisis that has been with us for most of a decade. It reveals once again how Congress will avoid painful decisions as long as possible before making choices clouded by confusion.

Experts saw the energy crisis coming a decade ago. The public was not aware of it until the 1973 Arab oil embargo. At that time, we imported about a third of our oil from abroad at a cost of \$8.5 billion. The gasoline lines and the fuel oil shortage of 1973-74 placed enormous pressures on the Government in general and the Congress, in particular, to do something—anything—about the energy crisis.

And, Congress did the wrong things. Rather than passing legislation that would increase the output and utilization of domestic energy sources, Congress took the politically easy path to cheap energy. Let us look at the record.

We passed the Energy Policy and Conservation Act of 1975.

This bill holds the price of old domestic oil to about one-quarter of the current world price. This was supposed to protect consumers from price gouging. In fact, it has resulted in our subsidizing the price of oil from OPEC and thereby encouraging higher foreign oil prices.

We passed the Surface Mining Control and Reclamation Act which makes the production of coal more difficult, and the Clean Air Act which makes the use of coal darned near impossible. As a result, our use of coal has barely increased since the end of the Arab oil embargo 5 years ago. This is especially appalling when we realize that our reserves of coal are virtually inexhaustible and that each ton of coal mined here offsets the need for 4½ barrels of oil produced elsewhere.

We continue the outmoded and counterproductive price controls on natural gas. In fact, we extended those controls to the hitherto un-

regulated intrastate market just last fall. The effect of this Byzantine system of price control has been to effectively preclude the domestic market from those very synthetic fuels we are ostensibly about to promote through the taxpayers here this afternoon.

Mr. Speaker, in considering the development of these synthetic fuels one thing should be crystal clear. There are not new technologies.

For example, coal was first gasified and sold as a lighting fuel in the early years of the last century—back in 1810 and 1812 in Baltimore.

“Town gas” has been sold in Britain for years and is only now being supplanted by natural gas from the North Sea. It is produced from coal.

Oil shale was produced in abundance in Scandinavia until then cheap foreign oil displaced it.

Hitler ran much of his war machine on liquid fuels made from coal.

And South Africa, which is being hailed as a leader in the field of synthetic fuels, if nothing else, is utilizing the services of an American engineering firm today to tap a process invented decades ago by an Italian citizen.

The point is clear. We are talking about technologies that not only exist today but existed before most of the people in this Chamber were born.

Before we launch this multimillion-dollar Federal program, we ought to look squarely at it and say, What are we doing? What are we doing? In the same week we are talking about creating a Federal program paid for by tax dollars for synthetic fuel, we are about to consider a bill that will make it impossible for many companies already in the energy field to produce energy.

In my hometown of Long Beach, Calif., we citizens of the city jointly own with the State of California an oilfield. We have over 300 oil wells that are presently shut in. Shut in because there is no oil? No. Shut in because we do not have the technology to produce it? No. Shut in and denying the proceeds to the people of my State and my city because this Congress has created a regulatory process, and this Congress has created a price-control mechanism that makes it uneconomical to produce oil that we happen to have in this country. If we took price controls off, we could have through tertiary recovery in California alone almost the doubling of known oil reserves in the United States.

The SPEAKER pro tempore. The time of the gentleman has expired.

Mr. QUILLEN. Mr. Speaker, I yield 1 additional minute to the gentleman from California.

Mr. LUNGREN. I thank the gentleman.

The point I am making is this: Although this bill may be worthy of support as a start or as an indication that something needs to take place with the Government acting as the agent, it seems to me we should also face the question as to whether or not continued price controls and putting on so-called windfall profits tax to such an extent that even public entities cannot produce oil for the people of this country makes much sense. It seems to me we owe the American people some hard decisions—not just rhetoric, not just fine-sounding ideas and fine-sounding new Government projects, which are paid for by the taxpayers—I also some real work, some real hard thinking, and some real product.

so that those people in the gas lines tomorrow and next week can get some relief and not just hear a lot of rhetoric and observe a lot of inaction from this Congress.

The SPEAKER pro tempore. The time of the gentleman has expired.

Mr. QUILLEN. Mr. Speaker, I yield 3 minutes to the gentleman from Arkansas (Mr. Bethune).

(Mr. Bethune asked and was given permission to revise and extend his remarks.)

Mr. BETHUNE. Mr. Speaker, I would like to commend my colleague, the gentleman from Pennsylvania (Mr. Moorhead, of the Committee on Banking, Finance and Urban Affairs)—and I serve on the committee—for his foresight in bringing this matter to the floor. The whole idea here is to activate and utilize our private enterprise system, and that idea should not be distorted by the rhetoric here on the floor.

I generally agree with my colleague, the gentleman from Texas (Mr. Paul) in his notions about the free market, but the fact is there are unusual risks involved in starting up a synfuels program in this country. Economic distortions in our energy policy are caused by our past regulatory actions. There is uncertainty among those in our private enterprise sector because there is no predictability of future Government action. So, for those reasons I think there comes a time when we must fight fire with fire. Some form of Government incentive is needed to help us make the transition from where we are now to the future.

I think this bill does that. The simple fact is that oil is short in supply and coal is plentiful, and I think that therein lies the interim solution for America. This bill will give us time, if we act now, to develop some of the more esoteric sources for the future.

If I thought that the marketplace could overcome the stranglehold of regulation that exists today and function as beautifully as my friend, the gentleman from Texas, would wish, and as I would wish, then I would be for his notion. But it seems to me that we are strangled right now by regulation, and private enterprise cannot get into this business of developing synfuels unless it has some help and some proper incentive. That is all this bill does. It is loose enough to allow flexibility to adjust as circumstances would dictate. We need to move fast.

I think we can anticipate some additional amendments here on the floor today in the nature of improving amendments to increase the supply of synfuels not only for military uses but for domestic industrial uses.

It has been mentioned that Hitler did this during World War II. I was a little young, but I have learned from history that Hitler did run the Luftwaffe and the Panzer Divisions on synthetic fuel because Germany did not have access to oil during those years and they had to turn to synfuels. I think there is a lesson in that for us. It can be done!

My point is that it seems to me that this is a reasonably small insurance policy for this country at a time when we really need it, and I could not endorse this bill more.

Mr. PAUL. Mr. Speaker, will the gentleman yield?

Mr. BETHUNE. I yield to the gentleman from Texas.

Mr. PAUL. I thank the gentleman for yielding.

I must ask the gentleman, if he concedes that regulations have been so damaging to us in producing oil and gas today, just what is it that makes him think that these same regulations might not be just as harmful in a new synthetic fuels industry?

The SPEAKER pro tempore. The time of the gentleman from Arkansas (Mr. Bethune) has expired.

The Chair recognizes the gentleman from Tennessee (Mr. Quillen).

Mr. QUILLEN. Mr. Speaker, before we can walk a mile, we must first take a single step. This step we are taking today is going to open the door in the future for massive production of synthetic fuels, and we must take this first step, and take it we will.

Mr. Speaker, I have one further request for time. I yield 2 minutes to the gentleman from Ohio (Mr. Ashbrook).

Mr. ASHBROOK. I thank my colleague for yielding.

Mr. Speaker, I address the body as one who listens regularly to the speeches in the well of this Congress, and it is amazing how many legislators find constant complaints with the Department of Energy but they voted for it. I find complaints with DOE, but I did not vote for it. They complain about allocations but voted for them. I did not vote for the system of allocation. They complain about price controls but voted them. I did not vote for the system of price controls. But I am going to vote for this bill.

Frankly, I do not understand the philosophy of those who think it is all right to pay the OPEC nations anywhere from \$18 to \$25 a barrel for oil but somehow resist any kind of subsidy when it comes to American domestic production. I am basically against subsidies as my record would clearly show, but here is one area I would subsidize, and I will tell the Members very simply why. We are talking about American labor; it would be American industry, and we start with an American product, an American raw material. And, above all, we end up with an American finished product. Any way we look at it, that makes more sense than sending billions of dollars overseas.

I know for a fact, because they are in operation, that we can put coal into gasoline. We have an example in this country where one company could produce methane. It wrote the Department of Energy, and it took 2 years to even get a reply and only then through the intervention of one of our colleagues.

My colleague, the gentleman from Texas, is correct in his concern about regulation, but I think we have to get to the place where we are self-dependent, and we can do that by starting with our own product and ending up with our own product. If it costs a little bit more in the process, we still end up with our own product, and, to my way of thinking, that justifies going forward in this project even if it is costly. I would support it wholeheartedly, although I might have some differences to the way in which the bill is written. It is hard for the Congress to write a reasonable, commonsense bill and this measure injects Government too much in this vital area but, on balance, we need it and it should pass.

I point out that in time of need, American technology and ingenuity developed the synthetic rubber we needed in World War II. We do the same in energy.

As a concept, to start with an American product and end up with a finished American product is what we must do. I would do it differently and more simple but the idea at least makes sense and it is the right direction.

Mr. PAUL. Mr. Speaker, will the gentleman yield to me?

Mr. ASHBROOK. I yield to the gentleman from Texas.

Mr. PAUL. I would like to ask one question, Mr. Speaker. Why do we suppose that we are smarter than the market? The supposition here is that the Congress and the bureaucrats know which fuel to make, whether it should be natural gas, gasoline, coal or something else. This is a presumption I do not think proper to make. We cannot pre-empt the market and make market decisions—which require choices by millions of people made voluntarily.

Mr. ASHBROOK. Mr. Speaker, my colleague is absolutely correct, but he is starting at the end rather than at the beginning.

The market is not determined now by factors under our control. The market is determined because of our dependence on foreign oil. They determine the market. They are the people who make the decisions. They blackmail us. They bring us to our knees. They determine the price by politics and not market and we are not in a position to counter their arrogance.

I would agree with you regarding the problems of DOE making allocations and making decisions but even at that I would rather have Americans, even bureaucrats, making decisions over my life rather than an OPEC nation or cartel which can bring us to our knees when we are dependent on them. We can throw the foolish bureaucrats who are creating these problems out on their ears. That can happen if we want to. As long as we are dependent on OPEC, we cannot throw them out. They can set the rules and price. Just the other day, Nigeria, a nation dependent on our foreign aid, threatened us. If we become self-reliant we can tell them where to go.

I talk as a person, as you well know, who is no friend of bureaucracy and would do everything I can to limit bureaucracy and go back to the market. We cannot unring bells. We do have a DOE, we do have an OPEC, we do have boycotts, we do have regulations but we do have energy insufficiently and it is a national disgrace. You cannot unring those bells in the 95th Congress with the liberal majority we have here but we must go forward from here and not on the basis of what our textbook says, but on the basis of what the facts of life are as they face our country today, limited though our options may be in this Democratic controlled pro-big government Congress.

Mr. DODD. Mr. Speaker, I yield 2 minutes to the gentleman from Arkansas (Mr. Alexander).

(Mr. Alexander asked and was given permission to revise and extend his remarks.)

Mr. ALEXANDER. I would like to compliment the gentleman from Pennsylvania (Mr. Moorhead) and this committee on their foresight in bringing this bill to the floor and giving us the opportunity to debate this critical question and a chance to take action on the energy question.

It has been 6 years since the Arab oil boycott which disrupted this Nation. We have learned that America is a nation of oil junkies. We are so dependent upon petroleum products that it frightens me.

With just about 6 percent of the world's population we consume about 30 percent of the world's energy and that translates into about 19 million barrels of oil per day; 8 million barrels of which come from foreign oil suppliers.

Now, Mr. Speaker, last year that cost us \$41 billion and that \$41 billion produced a trade deficit of almost \$28.5 billion. Bill Miller, Chairman of the Federal Reserve Board, tells me that about 40 percent of our inflation comes from the fact that we are buying oil from foreign producers that we cannot afford.

It is obvious to me we must do something about it. Six years is enough. We have wrung our hands, we have debated, we have discussed this issue and it is now time for the Congress to take action. It is time for America to kick the petroleum habit and formulate a multiple energy policy which includes the continued development of U.S. petroleum reserves, but also develops alternative sources of energy such as coal liquefaction, nuclear, gasohol, hydrogen, ocean thermal, wind power, and coal gasification.

The SPEAKER pro tempore. The time of the gentleman has expired.

Mr. DODD. I would yield to the gentleman from Arkansas 1 additional minute.

Mr. ALEXANDER. It is true that many of our people say, "Well, we do not know which of these options to take."

Many are content to wait around another 6 years wringing our hands debating the issue and cursing the darkness. The synthetic fuels bill will light a candle. It is better to light one single candle than to curse the darkness.

Mr. MCKINNEY. Mr. Speaker, will the gentleman yield?

Mr. ALEXANDER. I yield to the gentleman from Connecticut.

Mr. MCKINNEY. I would like to associate myself with the gentleman's remarks and with the remarks of the gentleman from Ohio (Mr. Ashbrook).

I would like to say the gentleman from Pennsylvania (Mr. Moorhead) and I sent our staff, we did not go ourselves, to South Africa and Brazil to investigate their synfuels programs. Guess whose technology built the South African plant? Ours. A firm in California.

I would also like to laud the gentleman from Ohio's remarks about the "freedom" of this market. What could have even been considered a free market—which never was because OPEC controlled it—has not become a political market. We, quite frankly, have Nigeria waiting to see what we do with Rhodesia, ordering us what to do with Rhodesia. On top of that we have Mr. Qaddafi who has said in a public interview published in our magazines here that they are a backward country and they do not really care if they stay a backward country 10 more years, but we care if we do not get his oil for 10 more years.

I do not think I even have to discuss with the gentleman or Member of this House the Ayatollah Khomeini and what he is like to do to us. This is an intolerable situation. I applaud what the gentleman said. This is money to be spent on American technology in this country so that this country can eventually develop its resources.

Mr. DODD. Mr. Speaker, I yield 2 minutes to the gentleman from Hawaii (Mr. Heftel).

(Mr. Heftel asked and was given permission to revise and extend his remarks.)

Mr. HEFTEL. Today, we are going to witness an example of how bipartisan politics in this body enacts legislation and exerts leadership in this country when it is not forthcoming from the administration.

Two and a half years have elapsed since the President told us that the energy crisis was the moral equivalent of war and in those 2½ years he has not demonstrated the ability to prosecute a war—of whatever nature it may be.

I applaud the gentleman from Pennsylvania (Mr. Moorhead). The gentleman's committee by a vote of 39 to 1 demonstrated great ingenuity in having brought this bill to the floor.

Let us now hope that this body will exert the leadership the country elected us to provide, which neither we nor the administration have provided. We cannot go home and say, "We failed." We have an obligation to perform—now.

I certainly hope that before this day is over the very prudent half million barrels a day introduced by the committee will be increased to 2 million barrels and that we will recognize we must have one plan, one methodology for escaping the noose which has been placed around our neck by the OPEC nations.

The people of this country, of the world, are watching us dangle at the whim of the OPEC nations. Let us tell them today that we are through dangling, we are going to recapture the initiative, protect our future; we are going to provide within this body the necessary leadership and positive action.

Mr. DODD. Mr. Speaker, I yield 5 minutes to the gentleman from Pennsylvania (Mr. Moorhead).

(Mr. Moorhead of Pennsylvania asked and was given permission to revise and extend his remarks.)

Mr. MOORHEAD of Pennsylvania. Mr. Speaker, today the Congress of the United States of America has an opportunity in H.R. 3930 to send a message to the world, the American people and the President.

That message is simply this:

America is going to rise and fight the challenge of energy supply and we are determined to be victorious.

We have had enough blackmail and extortion threats, we are fed up with our apparent inability or unwillingness to do something meaningful. And we are not about to go the way of ancient Rome.

The trouble with this country is that we have been trying too hard to manage an energy shortage rather than overcome it. Today we can act on the supply side of the equation.

This approach should not be in conflict with the motivations which prompted Congress to pass the Defense Production Act of 1950. The original law was approved in the early days of the Korean war when the United States found itself, because of supply shortages, unprepared to fight even a limited conflict.

The act was designed to put America in a state of preparedness to deal with any major emergency which might arise. This was intended to prevent the need of always acting after the fact.

In the recent energy crisis, Congress and the administration have been emphasizing primarily voluntary and mandatory conservation

measures. Our Government has been giving consideration to allocations and possible rationing actions. The problem of increasing supply was sidelined because of multiple committee jurisdictions, political warfare over price decontrol, and general indecision over a great many matters.

As a result, the House Committee on Banking, Finance and Urban Affairs is proposing a series of major amendments to the Defense Production Act to update it in light of the national security threat facing us today.

Now we are faced with the opportunity of legislating on a one committee production bill.

In the past we have looked on the demand side of the equation—now we can focus on the supply side of that equation.

What we have before us in H.R. 3930 are amendments to the Defense Production Act of 1950—not a new law, but one that has been with us for 29 years.

That law was enacted during the Korean war period when the scarcity of certain minerals and metals was the most serious production threat to our national security.

Oil and other forms of energy were in such great supply that it was not considered by the framers of the act of 1950 to be of enough significance to be included in the 1950 act.

Today, the House of Representatives has not only recognized the situation but has come up with a one committee, legislatively feasible answer to our energy problem.

The legislative answer for today involves the series of amendments to the Defense Production Act now before you.

I stress defense and production.

First: Defense in its broadest terms, military, economic, and political.

At the present time our foreign policy and our strategic policy dangerously dependent upon the need to rely upon the OPEC nations for our lifeblood supply of oil. Some of these nations (Libya, Algeria, Iraq, and Iran) have openly expressed their hostility to us.

Some are behind the Strait of Hormuz which are so vulnerable to terrorist sabotage.

Others may be subject to the kind of instability which affects one country (Nigeria) has threatened an oil embargo to blacken foreign policy stance in Africa.

Our loss of foreign policy independence is only equalled by our loss of economic independence. While the total import in barrels of oil increased somewhat from 1973 to present, the increase in the value of dollars has been astronomical—from \$8 billion in 1973 to \$80 billion in the present year.

National defense and national security are the reasons, and the development of secure alternatives is the basis for congressional action.

Amendment of the Defense Production Act is one logical solution to the problem.

H.R. 3930 is designed to spur commercial synthetic fuel production. It is not a research and development bill—although we believe that research and development should proceed forward. It is a conservation bill although we have, in part, done this in the Energy Policy and Conservation Act.

It does not purport to be a bill to use the regulation of interstate commerce, although that may be an interesting addition to a total energy program.

H.R. 3930 is a production bill.

Three years ago we had a synthetic fuel production bill before us and the rule for its consideration was defeated by one vote—292 ayes to 293 nays.

Part of the reason was timing. It was near the end of a session. One of the opponents of the bill wrote a "Dear Colleague" letter saying defeat the rule if you want to be home for Christmas.

That argument on this rule is not present today.

Part of the reason for the defeat of the 1976 rule was the fact that the opponents of synthetic fuels proposed some 165 perfecting and tightening amendments which would have made the bill unworkable.

While some of the opponents may attempt those tactics today, I am happy to report to the House that through the genuine cooperation of the gentleman from Michigan (Mr. Dingell) we have reduced our area of differences to approximately six amendments over which we have friendly disagreements.

Therefore, that argument against the rule does not exist today.

Part of the reason for the defeat of the 1976 rule was the fact that it was an all encompassing four-committee bill, comprising 133 pages with four committee reports totalling 352 pages.

That argument does not exist today because today's bill is a narrowly focused 11-page bill with one committee report totalling 65 pages.

Finally, unlike 1976, there is a new perception of our supply crisis.

As President Giscard d'Estang of France recently said:

I am convinced that on the day the United States will really start to move in the production of synthetic fuels, there will be a major change in the world situation.

That day is today.

Today's vote on the rule, today's votes against crippling amendments, today's vote for the passage of H.R. 3930 will mean the beginning of a new world situation and the beginning of the end of the U.S. diplomatic, strategic, and economic dependence on the OPEC countries.

Let us, today, vote our new declaration of independence before the 203d celebration of our first Declaration of Independence.

Mr. STRATTON. Mr. Speaker, would the gentleman yield?

Mr. MOORHEAD of Pennsylvania. Mr. Speaker, just 1 minute and then I will.

While there may be some opponents of this legislation that will try this tactic today, I am happy to report to the House that through the genuine cooperation of the gentleman from Michigan (Mr. Dingell) we have reduced our differences to approximately six amendments, over which we may have friendly disagreement.

Mr. DODD. Mr. Speaker, before closing debate, I would like to commend the gentleman from Pennsylvania (Mr. Moorhead).

I would note, I was sort of half expecting one of my colleagues to make mention of it that as we sit here this afternoon beginning to debate this particular piece of legislation, there is another meeting going on in the world today in Geneva. The OPEC nations are sitting

down to determine what we should be paying for gasoline and home heating oil in this country in the months and years ahead.

We really have no recourse at all. We can talk about the demand side of the problem, but it will be through legislation such as this that we may begin to deal with the supply side of the problem.

While I certainly was interested in the comments of some of the Members of this body who were in opposition to this legislation, I think most of us in this House recognize that unless we begin to deal with the supply side of the ledger, that we will be continually in the situation we are in today.

I strongly urge the adoption of this resolution and the legislation.

Mr. Speaker, I yield back the balance of my time.

Mr. Speaker, I move the previous question on the resolution.

The previous question was ordered.

The resolution was agreed to.

A motion to reconsider was laid on the table.

Mr. MOORHEAD of Pennsylvania. Mr. Speaker, I move that the House resolve itself into the Committee of the Whole House on the State of the Union for the consideration of the bill (H.R. 3930) to amend the Defense Production Act of 1950 to extend the authority granted by such act and to provide for the purchase of synthetic fuels and synthetic chemical feedstocks, and for other purposes.

The SPEAKER. The question is on the motion offered by the gentleman from Pennsylvania (Mr. Moorhead).

The motion was agreed to.

IN THE COMMITTEE OF THE WHOLE

Accordingly the House resolved itself into the Committee of the Whole House on the State of the Union for the consideration of the bill, H.R. 3930, with Mr. Studds in the chair.

The Clerk read the title of the bill.

The CHAIRMAN. Pursuant to the rule, the first reading of the bill is dispensed with.

Under the rule, the gentleman from Pennsylvania (Mr. Moorhead) will be recognized for 30 minutes, and the gentleman from Connecticut (Mr. McKinney) will be recognized for 30 minutes.

The Chair now recognizes the gentleman from Pennsylvania (Mr. Moorhead).

Mr. MOORHEAD of Pennsylvania. Mr. Chairman, I yield myself 5 minutes.

(Mr. Moorhead of Pennsylvania asked was given permission to revise and extend his remarks.)

Mr. MOORHEAD of Pennsylvania. Mr. Chairman, in my remarks on the debate on the rule, I stressed the reasons for some U.S. action on the energy production crisis.

Now, in the Committee of the Whole let me stress how H.R. 3930 seeks to achieve a partial solution to that problem.

First, what does it do and second, what does it not do.

To increase the production of fuels alternative to petroleum, H.R. 3930 does four things:

Price supports, subject to competitive bid, to a requirement for a multiparty participation and to the appropriations process;

Direct loans, subject to congressional veto;
 Guaranteed loans, subject to congressional veto; and
 Government corporations to do the job as we did in synthetic rubber,
 subject to congressional veto.

The primary focus of the direct loans and loan guarantees is geared toward small businesses interested in producing such synfuel as alcohol, although, subject to congressional veto is not strictly limited.

The first or guaranteed price support program, is the basic thrust of the bill.

The Government corporation program is designed to give a stimulus toward the success of the first three programs and to give the President an alternative production source if the first three fail in whole or in part or if the Nation faces an emergency in which ordinary free enterprise could not be expected to operate. I might say that emergency is a very real possibility.

Your Banking Committee has, by an almost unanimous bipartisan vote of 39 to 1, therefore, presented you with a well-balanced program for alternative production sources for our increased dependence on imported oil from the OPEC countries.

Let me now return to the guts of the bill—the guaranteed price feature—which is designed to unleash the fantastic power and ingenuity of our free enterprise system to solve a national, even international, problem.

Today our businesses are willing to risk vast sums of capital despite ordinary business risks. They are not—and should not be—willing to invest large amounts of capital against the risk of an international cartel which has shown itself capable of raising or lowering prices—not just for economic reasons—but also for the caprice of an international political power play.

Our bill preserves the principle of the free competitive market system by providing that all businesses submit sealed competitive bids in order to obtain price floor ceilings against OPEC. It does not specify any raw material or any particular process to achieve the goal of a particular amount of oil equivalent. That is open to all technologies. It provides for performance competition by limiting the number of businesses that could participate. In other words, no one, two, or three corporations could be awarded a contract to do the whole job. There would be no cornering of the market.

This bill is designed to harness the imagination, the ingenuity and the know-how of the American free enterprise system, with a minimum of Government interference to do a job for the United States.

The pluses of this legislation are so tremendous that I am mystified by the fact that there are opponents.

However, as in the case of all far-reaching legislation, there are opponents.

Some are the extreme environmentalists who express a vague, unarticulated fear of supporting energy production legislation.

First, as a conservationist before I came to Congress and as a former chairman of what is now the Environment, Energy, and Natural Resources Subcommittee, I consider myself a dedicated environmentalist.

On that score, I would like to offer some words of reassurance. The report on H.R. 3930 establishes a legislative history which says this new program should be carried out, and I quote:

Subject to existing environmental and other requirements provided by law.

Now the chemical engineers who design these plants have taken the criticisms and fears of environmentalists to heart. The plants now on the drawing boards feature both closed water and controlled gaseous emission systems. The water is recycled and as it evaporates is replenished from time to time. The gases are also recycled in the processing system. Those gases not used are subjected to more complete combustion reducing pollutants or even made into useful and valuable byproducts. Sulfur, for example, is an important and necessary element for many of our fertilizers to grow needed farm products. Believe it or not, we still import sulfur into this country.

As for the end product, the synthetic fuel, it is environmentally superior to any similar natural fuels in the marketplace, because so many contaminants such as sulfur and lead have been removed. The environmental benefits from these cleaner synthetic fuels are difficult to measure in dollars and cents, but just think what they can mean to improving public health. They will be a blessing to persons with respiratory illnesses and potential cancer victims.

Second, the bill before us is strictly a financial bill. It does not, nor does it purport to, amend any air or water quality legislation, any safety legislation, or any stripmining legislation.

Third, as to the question of cost.

It might cost the taxpayer little or nothing. As we all know, the price of imported oil is going up by leaps and bounds. Synthetic fuels are likely to track those increases and a crossover in price competitiveness between synthetics and petroleum is expected within a few short years. Some say it already has occurred.

What this means is that guaranteed prices set by the Government under competitive bids are likely to be exceeded by market prices at future delivery dates. In that event, the Government would pay no subsidy and indeed save money in its fuel purchases.

Even so, we would authorize \$2 billion if we had to keep our commitment to protect industry against losses stemming from a lower market price and possible price maneuvers by OPEC. But at least, if this did happen—and I do not think it will—the money would be going to American companies and American workers instead of overseas. If we had to build Government plants, I think we would eventually recover most of that investment as we did on synthetic rubber following World War II.

Some of you may be asking, if this is so good, why did not the United States get moving earlier?

The answer is simple. We made a mistake. Previous administrations decided to bypass existing technology and try to build what are called second- and third-generation plants. Given enough time and money, I am sure we could come up with advanced plants superior to anything in the world. However, the plain truth is money and time are running out.

Our carefully crafted set of amendments to the Defense Production Act—including those we will offer on the floor—have been designed to eliminate the negative, accentuate the positive and by a careful balance between private and Government participation appeal to Mr. In-Between.

As the Columnist Joseph Kraft has said :

This is an idea whose time has come.

Let us move ahead with this congressional initiative which now has the full support of the President and the administration.

Let us move toward our 5-year, 500,000-barrel-per-day objective while President Carter is in Tokyo so that he can urge the other industrialized nations to adopt similar goals.

If seven of them would agree, that would mean that in 5 years the non-OPEC nations would be producing 4 million barrels per day of oil substitutes, and we and our allies would be free from OPEC blackmail.

Finally, let us help to lead America to victory in a war—not fought with arms—but with the lifeblood necessary to keep alive and strong the greatest industrialized nation of the world.

Mr. STRATTON. Mr. Chairman, will the gentleman yield?

Mr. MOORHEAD of Pennsylvania. I yield to my friend, the gentleman from New York.

Mr. STRATTON. Mr. Chairman, I simply wanted the gentleman to yield a moment ago to point out that I, too, recall when that bill to create subsidies for synthetic fuel production went down by a narrow margin a couple years ago.

Mr. MOORHEAD of Pennsylvania. One vote is very narrow, if the gentleman will agree.

Mr. STRATTON. I have forgotten the exact number, but the reason it went down, as the gentleman will recall, is that the conservative Members of this body voted against it, because they thought it was outrageous that we should increase the Federal deficit by the amount of money contained in the bill. The liberals, on the other hand, voted against it, because they thought it was outrageous that we should give all of this money to these "fat, private energy companies" that ought to be able to put up their own dough.

Today, of course, we wish we had gotten started a lot sooner. I hope that kind of combination will not defeat this legislation today.

Mr. MOORHEAD of Pennsylvania. Mr. Chairman, I thank the gentleman from New York (Mr. Stratton) for his contribution.

Mr. LEVITAS. Mr. Chairman, will the gentleman yield?

Mr. MOORHEAD of Pennsylvania. I yield to the gentleman from Georgia.

(Mr. Levitas asked and was given permission to revise and extend his remarks.)

Mr. LEVITAS. Mr. Chairman, I thank the gentleman for yielding.

I remember that day 3 and a half years ago when the rule was defeated so that this House did not have an opportunity to bring on course at that time a synthetic fuels program. I think we would not be in the sad energy shape we are in today had we taken different action then.

It is my intention to support the bill, and I commend the gentleman from Pennsylvania (Mr. Moorhead) for bringing it to the attention of the House.

I have one question. I would like to ask the gentleman to clarify one point about the mechanism for providing incentives to the private sector to produce the synfuels. As I understand it, the dollar equivalent

of the synfuel to a barrel of oil based on the legislation before us is \$28 a barrel of synfuel.

Mr. MOORHEAD of Pennsylvania. Mr. Chairman, the bill does not set any dollar figure. The bill says that will be set by competitive bidding, sealed competitive bids.

Mr. LEVITAS. Mr. Chairman, will the gentleman yield further?

Mr. MOORHEAD of Pennsylvania. I would be delighted to yield.

Mr. LEVITAS. In some information that was made available to the Members, there is a reference that says the committee maintains that the real cost of the American economy of imported oil is much higher than the posted price of \$17 a barrel, and the committee uses the figure of \$33 a barrel as the real cost of imported oil, with a \$5-a-barrel differential between synfuel and the \$33 a barrel of oil. That is why I came up with the figure of \$28 a barrel of synfuel.

Are we by this legislation pegging the price of oil at \$28 a barrel?

Mr. MOORHEAD of Pennsylvania. Mr. Chairman, I would say to the gentleman that we are not. The estimates that were received by our committee said that synthetic fuel would cost in a range between \$25 and \$35. We will not know until we put this out for bids.

The real merit of this legislation is that it does rely on competition, and on free enterprise, and a free competitive system. We also provide for competition by saying in effect that no fewer than five corporations can be involved in it.

So we will have not only competition going into the contract but in performance competition thereafter. I think once we get moving on synthetic fuels, it will put a cap on the OPEC prices.

Mr. LEVITAS. Mr. Chairman, if the gentleman will yield further, as I understand it, then, what we are doing with this legislation is we are creating an incentive for the free competitive market and the strong and inventive private sector industry in this country to produce the synthetic fuels which will make us less dependent on OPEC and which will challenge the OPEC cartel pricing mechanism, and that could indeed have the effect of eventually bringing the price of oil down, because there would finally be a competitive market and not a cartel-controlled market.

This legislation can truly be the light at the end of the energy tunnel. It deals with more, not less. It deals with supply not just conservation. It gives the American people a reason to sacrifice today because tomorrow can be a better day. It holds out hope.

I understand that to be the case, and again I commend the gentleman from Pennsylvania (Mr. Moorhead). The people of America have been waiting at least 6 years to see this legislation enacted so we can get on with the business of becoming self-sufficient and breaking the OPEC cartel.

Mr. MOORHEAD of Pennsylvania. Mr. Chairman, I would say the gentleman from Georgia (Mr. Levitas), with his usual brilliance, has analyzed this legislation perfectly.

Mr. LEVITAS. Mr. Chairman, I thank the gentleman from Pennsylvania for his comment. Let me take this discussion a step further in depth.

Mr. Chairman our security depends on energy—readily available supplies of energy.

Our economy depends on energy—readily available supplies of energy at affordable prices. It is absolutely necessary to keep our economy running.

Oil and oil prices are controlled by a cartel of nations which have shown their antagonism to the United States in the past and which have no concern whatsoever for the American economy or the American consumer. The OPEC cartel control of the oil needed for our economic machinery has created shortfalls of oil, as well as constantly increasing prices for the oil that is available.

Unfortunately, we are dependent on OPEC for nearly 50 percent of the oil we as a nation consume each year. This is an untenable situation as we are becoming more and more aware. Long gas lines (when there is a station open and pumping), diesel oil shortages and truckers' strike and rapidly climbing prices for that gas have brought home in the most tangible way that we must break the OPEC stranglehold. The cartel must be broken. Then, and only then, will the price of oil and gasoline come down. Then, and only then, will the benefits of a free, competitive market be able to occur.

We must take all steps to break the OPEC price-fixing cartel. This is precisely what the people of America are looking for—a way out of our energy troubles on which we can all agree—that move toward energy independence.

I recently took a survey of my constituents, asking them what they believe the Federal Government's priorities should be. Overwhelmingly, my constituents, many of who can generally be considered fiscal conservatives, told me that new energy development should be the Federal Government's No. 1 priority. They know that we must become self-sufficient in energy, and they want to utilize any and all means of accomplishing that self-sufficiency.

Now is the time to make the decision to invest in, search for, and develop new forms of energy. Now is the time to decide how to divert funds into the research and mass production technology that is necessary to perfect solar energy, electric cars, synthetic fuels, and the like.

New, alternative fuel sources have not even been tapped to any significant extent. Synthetic fuels, gasoline from coal and other materials, new uses of coal, biomass, geothermal, in situ gasification are just a few possible new sources of energy, along with solar energy, which must be developed; and we are going to have to have them.

This bill, H.R. 4514, the Synthetic Fuel Development/Defense Production Act amendments, is another in our efforts to bring the Nation to energy independence, using proven technology, and for all practical purposes, what are unlimited resources of coal, shale, lignite, peat, biomass, and other domestic energy sources. By providing Federal incentives to the private sector, we let the resources and genius of our mighty industrial base have the ability to produce the synthetic fuels we need.

There are other steps we need to take to break the OPEC stranglehold:

We must learn to conserve the resources we have. But, conservation alone is not going to fill up the empty oil barrels, the empty fuel tanks, empty furnaces. It will only stretch out those resources left to us for a slightly longer period of time.

We must take immediate steps to encourage an increase in our domestic oil production. One way to increase domestic production is to decontrol the price of domestically produced oil. Why should we pay OPEC two and three times what we pay our own American producers for a barrel of oil? And why should an American producer sell oil for considerably less than the world market price? Decontrol, coupled with an equitable windfall profits tax that can help fund this bill, will increase our domestic oil supplies and help provide the means to produce alternative energy through "synfuels."

We can also set up a national grain board to make sure that American farmers are getting top prices for the grain they export to these nations. Such a board would be able to bargain effectively, wheat for grain. "A bushel of wheat for a barrel of oil" is the slogan for this effort. I am a cosponsor of such legislation and I believe it is just one more way to strike at the OPEC cartel.

However, the only real solution in the long run to our energy problems is the domestic production of new alternative energy sources. That is why we are passing this legislation today to encourage the production of synthetic fuels. This is necessary for our national defense, and our domestic economy. Indeed we cannot go very long without such "synfuels."

We need this comprehensive synthetic fuels bill, one that addresses the needs of the entire population for energy—the men and women who have to drive to work, the housewives who need to get to market, the transportation industry which moves our goods, the farmers who provide our food, everybody.

The time for action has come. The American people are tired of waiting. I urge the passage of this bill so that we can get on with the job of making America energy self-sufficient and break the OPEC cartel.

Mr. NELSON. Mr. Chairman, will the gentleman yield?

Mr. MOORHEAD of Pennsylvania. I yield to the gentleman from Florida.

(Mr. Nelson asked and was given permission to revise and extend his remarks.)

Mr. NELSON. Mr. Chairman, I thank the gentleman for yielding.

As a cosponsor of an identical piece of legislation, I also wish to say that I appreciate very much the leadership of the gentleman from Pennsylvania (Mr. Moorhead).

Mr. Chairman, I wish first to endorse H.R. 3930—the Synthetic Fuels Development/Defense Production Act amendments—because there is reason to hope now that this country's political inaction, which has allowed a greater dependence on Arab oil, may be broken. This major "syn-fuel" effort offers us a real chance for a national consensus on energy.

In addition to cosponsoring this legislation, I have introduced a comprehensive energy supply bill today. This bill is the companion bill to S. 1308, introduced earlier this month by Senator Henry Jackson in the Senate; I wish to commend Senator Jackson for taking the initiative and the leadership to pull together this comprehensive energy package as chairman of the Senate Energy and Natural Resources Committee.

It seems to me that with the United States importing almost 50 percent of its oil at a cost of more than \$60 billion each year, it is

mandatory to take action and to develop and commercialize those renewable energy resources, such as solar, wind, and urban waste. So far this year, the Organization of Petroleum Exporting Countries (OPEC) has increased the price of a barrel of oil by 40 percent and this does not even include the impending price rise today being considered by the cartel in Geneva.

We must plan for long-term energy needs through extensive research and development, but we must also take action now on those technologies that are currently available. We must cut through the redtape of the Federal Government. Technology currently exists for development of nonnuclear energy sources, such as coal conversion, solar, wind, urban waste, and other renewable sources that can be implemented right now. This is an action bill. It facilitates immediate implementation of many of the energy sources that can be made effective immediately.

My bill, Mr. Chairman, would set up procedures for cutting through Federal redtape for priority energy projects; would mandate action on near-term nonnuclear technologies covered by the Nonnuclear Energy Research and Development Act of 1974; would provide funding for a variety of energy development, demonstration, and commercialization projects; would mandate a major program to determine the viability of our vast oil shale resources; would call for an immediate study of the world oil supply and the production opportunities in non-OPEC countries; would launch an immediate 5-year program to lease onshore Federal lands for oil and gas exploration, development, and production; would provide for a gasohol program; and would propose to advance the commercialization and use of solar, wind, urban waste, and other renewable energy systems.

The CHAIRMAN. The time of the gentleman from Pennsylvania (Mr. Moorhead) has expired.

Mr. MOORHEAD of Pennsylvania. Mr. Chairman, I yield myself 2 additional minutes.

Mr. REUSS. Mr. Chairman, will the gentleman yield?

Mr. MOORHEAD of Pennsylvania. I yield to the distinguished chairman of the full committee.

Mr. REUSS. Mr. Chairman, I thank the gentleman for yielding.

I want to add my congratulations to the many that have been received by the gentleman from Pennsylvania (Mr. Moorhead), the gentleman from Connecticut (Mr. McKinney), and all those who have worked so hard on this bill.

In my judgment, this is a sound and necessary bill. I am proud that our Committee on Banking, Finance and Urban Affairs has reported it out. But in saying that I also recognize the great contributions made by so many others on other committees. This is no empire-building attempt by the Committee on Banking, Finance and Urban Affairs. This is an effort to work with the Committee on Interstate and Foreign Commerce, the Committee on Energy, and the numerous other committees which necessarily have great expertise in this subject matter.

Mr. MOORHEAD of Pennsylvania. Mr. Chairman, would the chairman of the committee agree with me that this is a focus bill, a bill focused on defense and production?

Mr. REUSS. That is exactly it. The answer to those who raise questions about economics is simply this: It lies within the power of OPEC after an American firm has put in a huge investment, to momentarily lower the price of oil in the direction of 40 cents a barrel so as to ruin the American competition.

So we have to have incentive to permit the exploitation of this great technical possibility.

I will at the proper time introduce an amendment which will put into place, if adopted, a 30-day veto by either House of the Congress on any purchase contract of more than 75,000 barrels a day. I have discussed this with the bipartisan leadership on the bill, H.R. 3930, and I believe it is agreeable. The amendment will insure that Congress has a full opportunity to consider environmental aspects and economic aspects, without in any way delaying the program.

I urge overwhelming support for H.R. 3930.

Mr. MINISH. Mr. Chairman, I rise in strong support of H.R. 3930, the Synthetic Fuel Development Act. Passage of this legislation, which I have cosponsored, is a vital step in the effort to free our Nation from blackmail by the OPEC cartel.

The measure before us today sets a domestic synthetic fuel production goal of 500,000 barrels a day of crude oil equivalent by 1984. Incentives are provided for industry to build commercial synfuel plants and the President is granted broad standby authority to involve the Federal Government in actual production of synthetic fuel if the private industry is not able to meet the production goal.

The bill defines synthetic fuels in very broad terms. The definition encompasses the conversion of any organic material into fuel, including, but not limited to, fuels produced from coal gasification, coal liquefaction, shale, lignite, peat, solid waste, and other mineral gasification, liquefaction, or other conversion.

In order to achieve the 500,000 barrels a day synfuel goal, the bill grants the President authority to:

Enter into contracts to purchase synfuels and to encourage the development and production of such fuels;

Transport, store, process, and refine any synfuel procured under the authority of the legislation;

Install additional equipment, facilities, processes or improvements to synfuel industrial facilities, whether owned by the Federal Government or by private persons;

Organize Government corporations, subject to a 60-day, one House veto, for the production of synfuels; and

Transfer excess synfuels to the national stockpile or to the strategic petroleum reserve.

The financial incentive provided by the bill is a guaranteed price on Government synfuel orders. The bill allows the President to refuse delivery of contracted synfuel supplies if he determines that they are not necessary for national defense. If delivery is refused by a Government agency, however, the Government must pay the synfuel supplier the difference between the contract price and the market price of the synfuel, assuming that the market price is lower than the contract price. If the market price is higher than the contract price, no Government payment is required. The bill authorized \$2 billion for payments

for undelivered synfuels with contract prices higher than market prices.

Mr. Chairman, today America is far too vulnerable to the demands of foreign governments. It is time to harness American ingenuity on our dependence on foreign imports and create an energy source of our own—synthetic fuels.

Mr. McKINNEY. Mr. Chairman, I yield myself such time as I may consume.

(Mr. McKinney asked and was given permission to revise and extend his remarks.)

Mr. STANTON. Mr. Chairman, will the gentleman yield?

Mr. McKINNEY. I yield to the distinguished ranking minority member of the committee.

(Mr. Stanton asked and was given permission to revise and extend his remarks.)

Mr. STANTON. Mr. Chairman, I rise in support of H.R. 3930. I think the time is here when we must shift gears from research to production. For years now we have been talking about an energy program. We have been experimenting with weak and unproductive conservation programs, encouraging alternative energy uses, and engaging in research seeking some optimum technique for producing synthetic oil. But the time has come when we can no longer wait for the optimum technique—we must move ahead with—production using present technologies while continuing to seek better ones.

Mr. Chairman, this bill passed our committee by an enthusiastic vote of 39 to 1 not because we think it is by any stretch of the imagination a panacea for our energy problem but because we feel it is a first step—a long overdue first step—toward reasserting our commitment to freedom and our national integrity. It is a modest first step designed only to assure sufficient supplies for our Armed Forces; but it was our hope that it would point the way and that, as with other military programs, demonstrate technologies that will have widespread benefits for all of our citizens. We are delighted to hear that the President has endorsed this idea and that the distinguished minority whip will introduce an amendment with bipartisan support and jurisdictional questions notwithstanding which will substantially increase the production goal we were forced to settle for because of our jurisdictional limitations. I will support an increase in those goals, and I urge other Members to do so.

I am not surprised to hear that there have been some criticisms expressed about this bill, particularly from our colleagues on committees who have worked on the broader energy question. Certainly there is great merit to the efforts they are making to develop a well-balanced overall energy program, but the fact remains that those efforts have been bogged down by multiple referrals with the result that the one thing we all agree we need—namely, commercial-size production facilities to reduce our dependence on oil imports—are not being built. That's the one thing this bill is designed to do, and we present it to you for your endorsement.

I cannot get excited about the broad powers in the Defense Production Act. This act has been on the books since 1950, and I have not heard anyone screaming about administrative abuses or urging its

repeal. On the contrary, it has been amended and extended numerous times with minimal dissent. The amendments which we are offering to it today are saying one thing loud and clear—we are making it a national commitment of the highest priority to regain energy independence so we can remain No. 1 economically, militarily, and politically. We are giving the President the tools to do that job.

For those who continue to be skeptical about these powers, let me point out that some safeguards have been built into the bill which will keep us notified about larger loans and guarantees. Some of the complaints about this suggest that the complainers anticipate that once the bill is passed, Congress will turn its back on the matter and let the administrators go their merry way. Let me assure those who have this view that nothing like that will happen. I can assure you that I will be watching this program very carefully, and I rather expect there will literally be millions of Americans watching it with me for the very simple reason that our national destiny may well depend on its success.

Mr. Chairman, in defending this bill against its critics, I do not mean to suggest that it cannot be improved, but neither do I apologize for it. We have fiddled here in Congress seeking the perfect answers to our energy problems. I am convinced there are none. The time to take a chance and move ahead is here. The Defense Production Act has proven effective in previous national emergencies—I am prepared to use it in this one.

Mr. Chairman, I also want to take this opportunity to congratulate the gentleman in the well, along with the chairman of the subcommittee, the gentleman from Pennsylvania (Mr. Moorhead), for the great leadership they have shown on this particular issue. These two gentlemen, I think, more than anyone else I can think of in the House, were responsible for pushing this through in the early days.

As has been brought out earlier, this passed our committee by a 39 to 1 vote. All I can do is help the gentleman in the well and the gentleman from Pennsylvania (Mr. Moorhead) by assuring them of my support. For an hour and 10 minutes many of us sat on the side and heard person after person appear in support of this legislation.

I would hope that the gentleman would have the support of the Members when a few of the amendments will be coming along a little bit later in which a divergency of views will surface and in which we will get away from production. Certainly the support these gentlemen have been given so far is an indication of the support they will have at the end of this bill.

Mr. BOLAND. Mr. Chairman, will the gentleman yield?

Mr. McKINNEY. I am delighted to yield to my friend, the gentleman from Massachusetts.

(Mr. Boland asked and was given permission to revise and extend his remarks.)

Mr. BOLAND. Mr. Chairman, I thank the gentleman from Connecticut. I share the opinions voiced by the distinguished gentleman from Ohio (Mr. Stanton), and I congratulate both the gentleman from Connecticut (Mr. McKinney) for his leadership on the minority side on this bill and, on the majority side, the gentleman from Pennsylvania (Mr. Moorhead).

Mr. Chairman, I rise in strong support of H.R. 3930, a bill which will take the necessary first steps in the development of a domestic synthetic fuels industry.

The simple truth of our energy situation is that our domestic demand for crude oil cannot be satisfied by our domestic supplies. I have seen no evidence which would lead me to conclude that we possess untapped domestic reserves likely to make up the difference between domestic demand and domestic supply. As long as we depend on foreign sources to balance supply and demand we will remain extremely vulnerable. For too long the economy and the people of this Nation have been hostages to production and pricing decisions for crude oil made by the oil exporting countries. The effects of our dependence on imported oil have been severe and will grow more so as our current gasoline supply problems graphically illustrate. It is absolutely essential, for both the preservation of the fabric of our society and for our national security that we break the stranglehold now maintained by the oil-producing nations.

I believe that a massive program of conservation is our only realistic short-term response to tight supplies and high prices of petroleum.

Such a program can and must be implemented. It can and it must be efficiently administered. In addition, however, we need a long-term solution. A "made in America" solution. A solution that will allow us to reclaim the means to determine our energy destiny. Mr. Chairman, I firmly believe that synthetic fuels have the potential to be that solution.

We already possess the technology necessary to produce synthetic fuels. We possess the raw materials necessary to produce these fuels in quantity. What we need to do is to provide a climate in which private business and business capital are encouraged to take the risks necessary to establish a domestic synthetic fuel industry. This bill would assist in the creation of that climate.

I fully realize that there are serious difficulties with the production of synthetic fuels. The procurement of the quantities of water used in the production process and the disposal of the quantities of toxic waste, which are a residue of that process, present problems which will have to be solved. I believe that these problems can be solved. I know that the development of a domestic synthetic fuels industry will be expensive. I firmly believe, however, that continued dependence on OPEC supplies will, in the long run, be even more expensive.

Twice before in the last 40 years, the Federal Government has assisted in the creation of an industry when our national security demanded it. The synthetic rubber industry and the aluminum industry are tributes to the genius of American technology and production capability. I would rather take my chances with those traits any day than continue to be dictated to by the uncertainties of politics in the Middle East. I urge that this bill be passed so that we can get about the business of making our own decisions on energy rather than always reacting to someone else's.

Mr. McKINNEY. Mr. Chairman, recently I found the draft of a statement that I never had the opportunity to deliver before this House. The date on the top of the page was September 23, 1976; the legislation to be considered that day was a bill providing loan guaran-

tees for the demonstration of new energy technologies. I had strong reservations about that proposal but I had decided to vote for passage in spite of my traditional aversion to Government subsidy programs due to several compelling factors.

As I had written then :

The first factor concerns the dire energy situation presently facing the United States and the equally pessimistic forecasts for the future.

How distressingly prophetic that observation has turned out to be. What needs to be said about those pessimistic forecasts of the future which in little more than 2 years have become the reality of today. The situation I experienced in Connecticut this past weekend has been repeated in many parts of the country. Admittedly, the fuel situation may not be as bad in all parts of the country as it is in the Northeast, but in some areas it is much worse as is evidenced by the outbursts of violence in Alabama and Pennsylvania last week.

Few of us probably realized in 1976 that we were enjoying the relative luxury of unrestricted gasoline. Even though the United States relies on imports for 40 percent of our oil supply and two-thirds of that was directly imported from OPEC nations which only 2 years earlier had seriously disrupted our economy through their embargo, the Members of this House decided that it was not in our country's best interests to develop a synthetic fuels industry at that time. I think the events of the intervening months, particularly the most recent period, have forced a rethinking of that decision.

For example, in a Rules Committee hearing last week on this legislation two of the primary opponents to the synfuels bill in 1976 made the statement that they were actually supporting the development of a synthetic fuels industry. Their support is welcome.

There are, however, very major differences between H.R. 3930 and any previous legislation aimed at the development of synthetic fuels in this country. In the past we have recognized the need for Congress to act in response to the energy problem, but there has been no corresponding consensus as to the means by which to resolve the problem. Simple recognition that an excessive degree of oil imports has a detrimental effect on the United States is not sufficient; calls for energy conservation may help but these are not the solution. There is only one answer for our dilemma and that is the production of domestic energy supplies. Conventional sources are not sufficient to meet this challenge, but coupled with production from synfuel technologies, the United States can achieve a reasonable degree of energy independence within the next decade.

Opponents of our bill have launched every type of attack on this legislation. Perhaps the most difficult to understand, and the easiest to refute, is the charge that national defense is not an issue in this proposal.

Most of my colleagues know that I am not the Pentagon's biggest supporter when the defense appropriations bill is on the floor. As a former sergeant during the Korean war period, I am a frequent vocal critic of excessive defense spending. But we are faced now with a situation that begs for a logical solution.

In the name of defense Congress is willing to appropriate more than \$180 billion to provide manpower, machinery, and the other tools of

war to protect the free world, primarily that part which is the United States. To keep that military juggernaut rolling—or sailing or flying, as the case may be—requires a substantial amount of petroleum. According to our testimony the figure for peacetime requirements is approximately 500,000 barrels daily. That is for direct defense-related needs and does not take into account the requirements of the defense industrial base, the civilian support establishment. Also, it should be emphasized that this is a figure for peacetime. Any involvement of American troops in a “police action” or larger commitment will require greater energy consumption. The Banking Committee received classified testimony from the Defense Department on this matter. Without being more specific, I would like to assure you all that every drop of synthetic fuel that results from this legislation is justified on the grounds of national defense.

I have another great concern—our national economic well-being—which is a peripheral part of this legislation. Some of those who oppose H.R. 3930 contend that there is no relationship among energy, the economy, and national defense. Perhaps during a simpler period that was true. However, times have, indeed, changed and we are not playing by Marquis of Queensbury rules. Embargoes, threats, and blackmail are very real concerns now because we are at the mercy of our petroleum suppliers.

In a memorandum to President Carter last March, Treasury Secretary Blumenthal stated that—

Our Nation's growing reliance on oil imports has important consequences for the Nation's defense and economic welfare.

Let me repeat those two factors: Defense and economic welfare. Integrally related, especially in today's world.

Secretary Blumenthal concluded that memorandum with this paragraph:

The continuing threat to the national security which our investigation (pursuant to the Trade Expansion Act of 1962) has identified requires that we take vigorous action at this time to reduce consumption and increase domestic production of oil and other sources of energy. To the extent feasible without impairing other national objectives, we must encourage additional domestic production of oil and other sources of energy, and the efficient use of our energy supplies, by providing appropriate incentives and eliminating programs and regulations which inhibit the achievement of these important goals.

In that memorandum the Secretary identified three steps that must be taken to reduce the threat to our national security: Reduced consumption, increased domestic oil production, and increased production from other energy sources. There are finite limits to the benefits of the first two solutions. Increased production from other sources is, in fact, the only escape route that we have available.

If there is anyone in this Chamber who is so naive that he fails to recognize the relationship between the economy and world peace, I would suggest a review of history might change that attitude. How often have you heard people say that we should send troops into the oilfields or take other military action to obtain an adequate flow of petroleum? An economic attack on this Nation, such as an embargo, can have devastating effects on our present and future lifestyle. Realistically speaking, we would probably have to take military action in

some form to keep our country and our Government from falling apart.

The ludicrous point is that any military action would further exacerbate our energy problem because we are in such a critical position now. Supplies from outside our shores are vulnerable to any number of threats. Even the great Alaskan pipeline is, mile after mile and foot after foot, a potential disaster. How much safer then can a slow moving oil tanker be?

If this Nation is going to be able to protect itself, if we are going to be able to conduct our own foreign policy, then it is absolutely imperative that we develop an independence from outside energy suppliers.

One of the other arguments that has been thrown at this bill is that the synfuels producers will destroy the environment by ignoring all of the environmental safeguards that Congress has established. As a founding member of the Environmental Study Conference I want to assure you that this legislation does not affect any such policy. It has been the intention of the Banking Committee to draft language that is consistent with authority given to the President in the Defense Production Act as well as authority and policy in other statutes. The charges that this would sacrifice our environment in the name of national defense is an extreme overreaction fueled by a small group who are opposed to the development of any synthetic fuel industry in this country.

Also it has been said that this bill would be detrimental to consumer interests. I fail to see the logic in that argument. Continually rising gasoline prices are not helping the consumers in my district. They are demanding that Congress do anything it can to provide more gasoline this summer and sufficient heating oil next winter. If H.R. 3930 can provide some incentives that will eventually reduce these shortages, and at a price that is no worse than that being charged by OPEC nations, I cannot understand the charge that this approach is anticonsumer. I do not think the public will accept that either.

Mr. Chairman, the basic purposes of H.R. 3930 can be summarized as follows: It identifies national energy resources as a strategic material vital to maintaining national defense preparedness; it recognizes that continued heavy reliance on imported petroleum makes our national defense subject to conditions beyond our control; it makes available to the President additional authorities under the Defense Production Act of 1950 to implement programs for the development of substitutes for such foreign source-dependent strategic materials; and it extends the authorities contained in the Defense Production Act of 1950. If, as a result of our passing this legislation, a commercially feasible synthetic fuels industry develops which reduced the U.S. dependence on foreign oil imports, I say, right on and full speed ahead.

There are two meetings being held in opposite corners of the world today which could be determining the very future of the United States. Or we, the elected Congress of the United States, could determine our own future. I have a definite idea of how the people of Connecticut want me to react to that challenge. As one of the principals involved in framing this proposal, I am proud to see a new declaration of independence sent by the elected representatives of the American people.

Mr. YOUNG of Florida. Mr. Chairman, will the gentleman yield?

Mr. McKINNEY. I yield to the gentleman from Florida.

Mr. YOUNG of Florida. I thank the gentleman for yielding.

Mr. Chairman, I rise in support of this bill and to associate myself with the remarks of the gentleman from Connecticut (Mr. McKinney). I compliment the gentleman and his colleagues on the committee who have worked so hard in developing this approach. This is the type of action that will go a long way in creating some confidence in the minds of the American people on the ability and the determination of this Congress and this Government to do something about the long lines at the gasoline stations and our short supply of liquid fuels. Mr. Chairman, this is the first real action by Congress to do something about production. And that is what we have been needing for so long. Conservation is good and essential but when dealing with a very restricted supply, conservation alone will not provide the solution. Conservation combined with added production will. This bill speaks to that long neglected issue of production and I urge my colleagues to support it.

Mr. HILLIS. Mr. Chairman, will the gentleman yield?

Mr. McKINNEY. I yield to the gentleman from Indiana.

Mr. HILLIS. I thank the gentleman for yielding.

Mr. Chairman, I wish to express my support for this measure, H.R. 3930, which would amend the Defense Production Act to allow the Federal Government to encourage private industry to increase the production of synthetic fuels for national defense purposes.

When I first heard this measure was coming before the House, I was somewhat reluctant to support it. My apprehension was not based on a belief that the Federal Government should not encourage the production of synthetic fuels. In fact, I think the Federal Government has been negligent in not doing more to further synthetic fuel technology. It has been almost 6 years since our overdependence on OPEC oil was dramatically demonstrated by the 1973-74 oil embargo. However, this Nation has yet to develop a meaningful energy policy designed to curtail that dependence.

I hesitated to support H.R. 3930 because I do not feel the Defense Department or its budget should be used to solve social or economic ills, or address any nonmilitary issue. However, after reading the provisions of H.R. 3930, I am convinced that our reliance on OPEC oil is of military importance. Our national security is threatened by an excessive dependence on foreign sources of oil.

The fall of the Shah's government in Iran illustrates how tenuous are our oil supplies. Many of the 13 OPEC countries are located in unstable parts of the world. It is conceivable that the United States could lose access to major sources of OPEC oil due to events beyond our control. Should this occur, not only would our economy suffer, but our military capabilities would be jeopardized. It is, therefore, appropriate that the Defense Department, along with other agencies of the Federal Government, be required to purchase synthetic fuels.

Synthetic fuel technology is still in the embryonic stage. It will be a number of years before substantial amounts of nonpetroleum-based fuel are available. H.R. 3930 provides the requisite incentives and guarantees for private industries to construct commercialized synthetic

fuel refineries. As the committee report outlines, this bill has received widespread endorsement throughout the Federal Government and private sector. While H.R. 3930 is too limited in scope to provide an answer to our energy situation, it is nevertheless a first and significant step in the right direction.

I hope the Congress will continue to examine other alternatives to spur the development of synthetic fuels. The growth potential of this industry is almost limitless. If this Nation is to remain economically sound and militarily secure, we must learn how to produce fuel from sources such as coal and feedstocks.

The timeliness of this bill is significant with President Carter in Japan attending an economic summit of industrialized nations in an effort to develop an international response to the world energy situation. The OPEC nations are also meeting at this time and are expected to announce an increase in prices once again. I believe passage of this bill will illustrate to the entire world that the United States is at long last endeavoring to reduce its reliance on foreign oil.

I urge all my colleagues to join in this message and pass H.R. 3930.

Mr. ROTH. Mr. Chairman, will the gentleman yield?

Mr. McKINNEY. I yield to the gentleman from Wisconsin.

Mr. ROTH. I thank the gentleman for yielding.

Mr. Chairman, I also wish to join my colleague in complimenting the gentleman from Connecticut (Mr. McKinney) on his remarks and on his insight.

Mr. Chairman, energy is the lifeblood of our economy. And the future of this Nation is largely dependent upon the policies Congress adopts regarding energy. To reach our national energy goals it is clear that the United States must act to increase its domestic energy supplies and to reduce its vulnerability to embargo or other disruption of supplies.

Two years ago, the President called for "the moral equivalent of war" to deal with the energy crisis. So far, both the administration and Congress have failed to develop an effective energy policy.

In my view, our national energy policy should include four major points:

First. Incentives for expanded domestic production of gas and oil.

Second. Research and development of alternative energy sources, including solar, geothermal, coal, oil shale and nuclear.

Third. Improved relations with Western Hemisphere nations that have significant energy resources.

Fourth. Fair, reasonable energy conservation measures.

H.R. 3930 is an important step in this direction. It would establish a national production goal of synthetic fuels and chemical feedstock equivalent to 500,000 barrels of petroleum per day and Government purchase apparatus that would insure the development of a domestic synthetic fuel industry—an industry that would rely largely on the huge resources of coal, shale and biomass in the United States and begin to free us from dependence on foreign energy sources.

U.S. dependence on foreign oil has increased dramatically over the years. It constitutes a serious danger to long-term national security and economic stability. Half of the Nation's critical oil supplies are imported; of that amount, 83 percent comes from OPEC nations. For

the next decade, U.S. reliance on imported oil is expected to remain relatively undiminished.

The risk of supply interruption is of major concern, considering the 1973 embargo and recent developments in Iran.

Disruption of any source of supply tends to concentrate U.S. reliance on other supply sources, and leads to unscheduled price increases. Dependence impairs the national defense by creating doubts about U.S. ability to sustain prolonged conflict. This hampers our country's ability to achieve foreign policy objectives, both economic and political.

Achievement of U.S. economic objectives is seriously threatened by excessive dependence. Imported petroleum is a major factor in the large U.S. trade deficits. The ability to produce and operate weapons systems depends on the ready availability of energy supplies. Everything the United States has in the way of weapons systems on the drawing boards for the next 25 years relies on petroleum or a synthetic substitute.

These facts illustrate the growing need for the United States to move ahead in developing a synthetic fuels industry to replace in some measure imported oil. Although the United States does not have any commercialized synthetic fuel plants in operation, the technology to bring these plants on is available. The crossover point between price competitiveness of synthetic and petroleum fuels is closing rapidly.

No issue is likely to have greater budgetary importance in the years ahead than energy. Its impact on spending, revenues, taxes and the general goals of fiscal policy are of great importance. At present expenditures for energy are a relatively small part of the total Federal budget. But the importance of energy far overshadows its dollar ratio to the total budget.

While the costs of developing a synfuels industry capable of meeting the production goal are not cheap, the costs of not proceeding could be far greater. I believe this program demonstrates that the Federal Government is prepared to share in the risks to promote private investment in the commercial development of these technologies. The longer we delay developing a synfuels capability, the greater will be the likelihood in a future crisis of being forced into a massive crash program funded entirely by the Federal Government to achieve the same purpose.

In short, we must continue to be concerned about the size of the Federal budget. However, because of the importance of energy to our economy and the Nation's future we cannot afford to be pennywise and pound foolish.

The United States has enormous reserves of oil shale, tar sands, geothermal steam and coal which are suitable for liquefaction or gasification. However, development of the new technologies required to utilize these resources cannot be handled completely by private capital markets. Such development will depend on some form of Federal incentive. I believe that H.R. 3930 addresses this problem.

In the final analysis I believe this measure will prove to be a good investment for the United States. Not only does it promise to improve our energy situation, but it also offers the opportunity to increase employment in our own Nation. Producing more of our own energy

will also reduce the trade deficit, and ease inflation, thus benefiting our economy.

I have no illusions about this bill being a complete answer to the energy situation. Better conservation measures are required. But it is clear that we must produce more energy to meet the Nation's needs. And this bill marks an important step toward increased production.

I reserve the right to vote for amendments which are expected to be offered. However, I believe the aim and direction of this bill is right. In my view the United States is now living in a fools paradise as far as energy is concerned. The situation urgently demands action. It is long past time that the Congress and the administration acted to put the Nation on the road to a solution of our energy problems. I support this bill as one important step toward achieving that goal. I urge the support of my colleagues on this measure.

Mr. MOORHEAD of Pennsylvania. Mr. Chairman I yield 2 minutes to the distinguished gentleman from Michigan (Mr. Dingell).

(Mr. Dingell asked and was given permission to revise and extend his remarks.)

Mr. DINGELL. Mr. Chairman, once again the House is considering legislation to encourage synthetic fuels production. I support the development of synthetic fuels and I have been working with the various proponents of synthetic fuels legislation to craft legislation which will truly develop a healthy synfuels industry. I am joined in this effort by my colleagues Representatives Ottinger, Brown of Ohio, Stockman, Gramm, Moffett, Eckhardt, and Moorhead of California.

The Subcommittee on Energy and Power, which I chair, has taken an active interest in the development and commercialization of synthetic fuels during the past three Congresses. In fact, the subcommittee heard testimony several days ago from a number of Federal agency officials and representatives of the private sector concerning their views on synthetic fuels. I would also note that the purchase authority provisions of H.R. 3930 are similar to the price support concepts embodied in the Commerce Committee version of H.R. 12112, which was a synthetic fuels bill developed by our committee and the Science Committee in 1976.

I commend the Banking Committee for bringing these issues to the attention of the House once again. They have taken useful steps in using the Defense Production Act to encourage synthetic fuels. However, such an approach brings with it some unnecessary consequences. Because of the Defense Production Act's broad powers which are given to the President, it is important to preserve a tight definition of what constitutes national defense. We are all too well aware of what some Presidents have done under the catchword of "national defense." The legislation before you broadens the definition of national defense to include all energy production, and amends the scope of the act's provisions to include energy production. In so doing, the act's allocation powers could be construed to include rationing, and the allocation of petroleum supplies for purposes other than those which we would consider the "national defense." Congressman Moorhead of Pennsylvania, however, assures us that his committee did not intend.

I intend to offer amendments to remedy this problem and ensure that the Defense Production Act remains an act to be used for national

defense purposes. Energy legislation dealing with allocation authorities, such as the Emergency Petroleum Allocation Act, has been carefully developed by our committee and its Senate counterpart over the years. We have built in safeguards, such as priorities for agricultural uses of gas and prohibitions on allocation of intrastate gas. The Defense Production Act should not be broadened so as to possibly overrule that legislation and its safeguards.

As I stated before, I endorse the purchase authority concepts in H.R. 3930. I intend to support perfecting amendments to this authority. For example, the new section 305(c) would permit purchases to be made "without regard to the limitation of existing law." In other words, the contracts would not be governed by any other laws, such as civil rights laws, clear air and water laws, NEPA antitrust laws and procurement laws. I fail to understand the need for such an exemption and I do not understand its scope. Nor, I think, does anyone else.

The purchase authority would extend to synthetic fuels plants located in foreign countries; I believe purchases should be permitted only from plants located in this country. The legislation would also permit OPEC to own these plants; my amendments would preclude foreign governments from ownership. I would also limit the authority by requiring additional scrutiny of the piggybacking of multiple benefits, such as grants and loan guarantees on plants which are already receiving the benefits of this section. It is important that companies entering this field share in some of the risk—if they do not we will not encourage a U.S. synthetic industry—only a U.S.-subsidized effort which will never be able to stand on its own.

I am less enthusiastic about the value of loan guarantees for such plants. I suspect that what is needed is a guaranteed market, not a guaranteed loan. A guaranteed market should be good as gold to a company looking to raise capital.

Certain technical changes should also be made to the legislation. For example, what appears to be one-House veto provision, for loan guarantees in excess of \$38 million, include no provision for expedited procedures or for privileged motions to discharge. The Energy Department could guarantee a project for \$2 billion and unless the Armed Services Committee reports a disapproval resolution, the House will never have an opportunity to vote on it. Very large guarantees should be subject to separate authorizations.

I am also not enthusiastic about the establishment of Government corporations to achieve the production goals of the bill. I want to encourage a healthy industry in the private sector to produce synthetic fuels. A Government corporation could be industry's greatest nemesis in achieving success. The Government should encourage competition in this industry, but should not itself be the competition.

Finally, there are a number of curious provisions in this bill for which I can discern no reason, but which could provide the President with some rather unique powers. For example, the bill states that:

The President is authorized and directed to require fuel and chemical feedstock suppliers to provide synthetic fuels and synthetic chemical feedstocks in any case in which the President deems it practicable and necessary to meet the national defense needs of the United States.

Who are "suppliers"? Do they include jobbers and retailers? Can the President make them sell synthetics? What would such an order

look like? I would not want to be a "supplier" who got a Presidential order to "provide" synthetics—I am not sure to whom—if I did not have any.

Then there is an interesting provision which permits the President "when in his judgment it will aid the national defense * * * to install Government-owned equipment in plants, factories, and other industrial facilities owned by private persons." I am not sure what purpose this provision serves. I would not want to be a factory owner when the President decides to put some "equipment" in my factory.

My purpose in raising these issues is not at all to defeat initiatives to encourage synthetic fuels. To the contrary, I strongly support increased use of synthetic fuels. But we must put our incentives where they will help the most. We must build a healthy industry, which will not depend on the continuing aid of the Federal Government. We must not stifle an industry by heaping too many subsidies on one project so others cannot afford to compete. Nor should we let the Government itself, in the form of a corporation, bar potential entrants from the market.

Mr. MOORHEAD of Pennsylvania. Mr. Chairman, I yield 2 minutes to the gentleman from New York (Mr. Ottinger).

(Mr. Ottinger asked and was given permission to revise and extend his remarks.)

Mr. OTTINGER. I thank the gentleman for yielding.

Mr. Chairman, as the Member who led the fight against loan guarantees for development of synthetic fuels in the last Congress, I want to make it clear that I support the concept of the purchasing authority that has been devised by the gentleman from Pennsylvania and his subcommittee and congratulate him for a very useful and, I think, well-thought-out and well-crafted method for bringing on synthetic fuels. I do have some problems with the other authorities in the bill, however, and with the gentleman from Michigan (Mr. Dingell) and other colleagues, will attempt to assure adequate protection of the taxpayer as we proceed with this legislation.

Mr. MOORHEAD of Pennsylvania. Mr. Chairman, will the gentleman yield?

Mr. OTTINGER. I yield to the gentleman from Pennsylvania.

Mr. MOORHEAD of Pennsylvania. Mr. Chairman, would the gentleman agree with me that the bill that went down to defeat was a big loan guarantee with a little purchase contract?

Now we are bringing a big purchase contract on at this time with a little loan guarantee?

Mr. OTTINGER. I do agree. I think there are still some problems there. My principal concern is that we are dealing in an area where we have some of the largest and most voracious sharks that appear in the waters who would like to get their teeth into the Federal Treasury.

The loan guarantee program that was put forth in the last Congress had no limits on it whatsoever. The Government would take all the risks on any kind of project whatsoever without any congressional control; if it was successful, the company promoting it would make all of the profits. If it was unsuccessful, and the way that was geared up, it was almost sure to be unsuccessful, Uncle Sam would have ended up

footing the entire bill. The potential Federal exposure amounted to billions of dollars.

In this legislation we have some of the same problems, which I hope we will be able to work out with the gentleman from Pennsylvania, to assure that the same kind of unlimited liability for the Federal Government does not again occur.

Most of the projects that we are talking about are already in the process of development by the Department of Energy through authorizations by the Energy Development and Applications Subcommittee of the Committee of Science and Technology, which I chair. They are being developed under cost-sharing arrangements under which the Federal Government has put up at least half the money. Under this legislation, loans, loan guarantees and guaranteed purchase prices are also authorized. We have to make sure that the companies seeking Federal subsidies are subject to reasonable oversight. We properly minimize their risks through the purchase authority provided by the committee. We must be sure that their risk is not reduced to zero or below.

Mr. MOORHEAD of Pennsylvania. Mr. Chairman, I yield 2 minutes to the gentleman from Minnesota (Mr. Vento).

(Mr. Vento asked and was given permission to revise and extend his remarks.)

Mr. VENTO. Mr. Chairman, I want to commend my good friend from Pennsylvania (Mr. Moorhead) for bringing this important bill to the floor at this time. He has long been in the vanguard of our foresighted legislators who have tried to get the attention of the Nation to focus on the need for a synthetic fuel capability. The gentleman from Pennsylvania has encouraged the Members and the staff of the Economic Stabilization Subcommittee to study the various alternative processes so we could more knowledgeably deal with the overall problems. I, for one, am grateful for his leadership.

As we see lines of waiting cars inch ever so slowly into those service stations which still are pumping gasoline, we are becoming alarmingly aware of our national defense vulnerability to interruptions in our petroleum fuel supplies. Long gone are the days when the United States exported oil to our allies around the world when their supplies were cut off. But even when the Arab oil boycott should have taught us an important lesson that we must develop alternative energy sources for defense purposes, we, as a Nation, chose to ignore it.

Today, we are experiencing a severe energy problem. The appropriate role of government is, of course, an issue. Government controls neither the supply nor the demand side of the energy equation today, and yet we are expected by the people we represent to somehow reconcile the disparities that occur between supply and demand.

On the supply side there is a finite amount of conventional resources including oil and on the demand side we have permitted a wide latitude of consumer choice for all practical purposes without Federal/State Government intervention. The growth of that demand and the efforts to meet it have, for a variety of reasons, outstripped supply and the consequences of a small shortfall of conventional oil is evident around us today. The dollar flow and balance-of-trade issue is of profound threat to our future. Government by definition exists to resolve

problems that individual societies cannot solve themselves; in my judgment, an appropriate description of the present shortfall and a likely specter that hangs over the future of our society.

The legislation which has my support as a cosponsor, H.R. 3930, addresses the supply side of the equation. It provides the opportunity for our Government to create the framework within narrow parameters to capture existing technologies, and increase the supply of oil and oil products within our economy. It is not a panacea for our energy problem, it is just one of many initiatives that should and must be implemented if we are to successfully engage in helping this country meet its future needs and economic growth.

We have lost too much time and are living in peril while our tremendous resources of coal, oil shale, tar sands which rival in magnitude the energy from the world's present oil reserves lie relatively untapped. The bill before us makes one important if modest effort to change that. The scope of the bill is limited to supplying the petroleum equivalent of 500,000 barrels of oil a day which is presumably the normal daily consumption of the Department of Defense.

I favor this limited approach because the synthetic fuel and feedstock capability this bill provides will demonstrate our determination that this country is prepared to look to guaranteeing its defense fuel requirements and that the oil blackmail strategy of the exporting countries has run its course.

We must maintain this synthetic fuel and feedstock capability even if foreign suppliers drop petroleum prices and increase supplies to counter our strategy because we must never again be vulnerable to oil blackmail.

Mr. Chairman, the Arab oil embargo and the first big jump in world oil prices was nearly 6 years ago. Repeat—6 years. During that time this Nation and this Congress have dawdled, and our people know it. In one crucial area of response to this wholly new threat to our economy and our very national security—a serious synthetic fuels capability—we have accomplished practically nothing.

The bill before the House today would get us started at least. The vehicle—the Defense Production Act of 1950—is entirely appropriate. It contains the flexibility that the executive branch simply must have in order to get these large plants built and operating. And it ought to be obvious to everyone that this Nation's vulnerability in its oil supplies is a matter of direct national defense concern. Testimony at the hearings on this bill from Defense Department witnesses left no doubt on that point. The Defense Department said, without equivocation, that it urgently wants a domestic synthetic fuel capability.

The genius of this legislation is that it avoids the thing that has tied us up for all these years—an effort to have Congress specify exactly what should be done and how it should be done. That is the thing we in Congress are least equipped to do, and this bill contains the necessary discretion for the President to get moving. It specifies no particular technology. It specifies no particular financial tool. It would tell the President—and our people—that the time has come to get going. Not wait for the third or fourth generation technology. Not allocate plants by congressional district. Not hold up everything to await the last decimal point of savings in cost. But get going.

I believe that is what the Members of this body want—to get going at last. This is the bill to do it.

I am well aware of the high costs of a fully implemented program as envisaged by this legislation, but I am convinced the value of synthetic fuel, as insurance against the price and supply aggression of the oil cartel, and for preserving the liberty of the free world can be incalculable.

Mr. McKINNEY. Mr. Chairman, I yield 2 minutes to the gentleman from Florida (Mr. Kelly).

Mr. KELLY. Mr. Chairman, I think this is a euphoric moment, and I mean here we are in Congress finally doing something good for the Nation. I think in our excitement that we should not forget who we are and what the nature of Congress really is. We could be right in the middle of creating one of the most gigantic and initially popular pork barrels that this Nation has ever seen.

I voted for this bill in committee, and I voted for the bill in committee because the good judgment of the chairman of the subcommittee was such that he joined with me in report language that causes this bill to be structured in this way, that the President can specify the kind of energy that he wants, but he is not permitted to specify the technology, the feedstock or the location of manufacture, so that way there is some hope that the industry in this country, the free enterprise system will have an opportunity to perform the miracles to solve this energy problem that it has with other industrial problems of the Nation.

Before we start jumping on the oil companies again, I would like to remind everyone at this particular moment that the only reason the U.S. Government is required to subsidize the manufacture and production of synthetic fuels is because those bad old, oil companies have produced energy so cheap in America today that there is no other form of energy that is competitive. And those bad OPEC nations, also, have provided energy for this country at prices that are so cheap that there is nothing else that is competitive. That is why we are having to subsidize the production.

So, if we can just cause the industry that has provided this miracle of energy for the United States up to this point to participate in the synfuel production we can expect the energy problem to be solved. Provided, of course, the Government does not strangle the effort with regulation.

The CHAIRMAN. The time of the gentleman from Florida (Mr. Kelly) has expired.

Mr. McKINNEY. I yield the gentleman 1 additional minute.

The CHAIRMAN. The gentleman from Florida is recognized for 1 additional minute.

Mr. KELLY. I thank the chairman.

So if I can keep the free enterprise system involved in solving the energy problems in this country we are going to continue to have the cheapest energy in the world. Today the American consumer, with all the griping and complaining by everybody and all of the castigation by the Government officials who are trying to scapegoat the free enterprise system, we, as consumers, can buy gasoline cheaper than any consumer in any industrialized nation in the world and this even after deregulation. And those just happen to be the facts.

So, I am hoping that this bill will come out in a way that we can lean on the free enterprise system and solve the Nation's energy problems.

Mr. SHUMWAY. Mr. Chairman, will the gentleman yield?

Mr. KELLY. I would be happy to yield to the gentleman from California.

Mr. SHUMWAY. Mr. Chairman, I am pleased to rise in strong support of the legislation before us today. H.R. 3930, which was drafted by the Economic Stabilization Subcommittee, on which I serve, amends the Defense Production Act of 1950 in a most innovative fashion.

The centerpiece of this bill is that provision which requires the President to attempt to achieve production of a 500,000 barrel per day synthetic fuel crude oil equivalent. Given our current energy situation, it is imperative that we not only begin to reduce our dependence on the OPEC nations, but that we increasingly utilize alternate domestic energy sources. Certainly, the American people expect no less.

During the extensive testimony our subcommittee heard on the Defense Production Act amendments, one key point was repeatedly made: U.S. dependence on OPEC has increasingly serious implications for our national security and economic well-being. We currently import about 50 percent of the crude oil consumed in this country—some 8 million barrels per day. Of this amount, 83 percent comes from OPEC nations.

That the increasingly expensive purchase of foreign oil weakens our economy through continuing balance of payments deficits and inflation is obvious. If there were no clear compelling reason for turning to alternate domestic energy sources, the approach embodied in H.R. 3930 would still be justified.

Yet there is another compelling reason—national security. It may not be extreme to say that the OPEC nations through their ability to withhold oil supplies, have the capacity to prevent the United States from acting militarily to defend vital interests. The U.S. military crude oil requirement currently averages around 500,000 barrels per day; in an emergency situation, this level would rise dramatically.

Our focus, therefore, has been on, at a minimum, developing a synthetic fuel capacity which would equal our current daily defense needs. And H.R. 3930, we believe, is an appropriate vehicle for achieving this objective—500,000 barrels per day of synfuel crude oil equivalent.

The bill, as drafted, provides for maximum reliance on the private sector, through the utilization of price competition and the removal of restrictive regulatory requirements.

However, since synfuel production will be exceedingly expensive, at least in the initial stages, the bill provides for a guaranteed price. Only when the market price of synfuels is below the contract price will the Federal Government be required to make up the difference.

In addition, as a last resort, the bill gives the President the authority to set up the Government-owned corporations for the production of synfuels if the private sector proves unwilling or unable to meet production goals. I might point out that we have provided for a one-House veto provision in this area.

In closing, I would like to reiterate that a synfuels program, on any sizable scale, will be very expensive. Although we have made great efforts to keep Government involvement at a minimum, the fact remains that it is currently just not economically feasible for the private sector to develop a synfuels capability on its own.

H.R. 3930 therefore mandates that the Federal Government share in the risk and the expense. And while the costs will admittedly be significant, the alternative—increased reliance on foreign sources—will be much more expensive in the long run. I urge the House to accept this vital legislation.

Mr. McKINNEY. Mr. Chairman, I yield 2 minutes to the gentleman from Ohio (Mr. Wylie).

(Mr. Wylie asked and was given permission to revise and extend his remarks.)

Mr. WYLIE. Mr. Chairman, I want to compliment the gentleman from Pennsylvania (Mr. Moorhead), for his leadership and the gentleman from Connecticut (Mr. McKinney), for his hard work and leadership in bringing this bill to the House floor today.

Fortunately, I was one of those who spoke in favor of the rule 3 years ago when a similar bill was on the House floor. So I am on record as supporting the concept then and want to go on record as supporting it now.

I also testified in favor of a similar bill before the subcommittee of the gentleman from Pennsylvania (Mr. Moorhead), 3 years ago. I am especially interested in this bill, being from the State of Ohio, because we have been told that there is over 750 trillion cubic feet of natural gas trapped in the Devonian shale which covers the eastern half of the State of Ohio; and that there are large quantities of oil trapped in this shale.

We have an enormous amount of coal, which is high in sulfur content, and which if it were liquefied and gasified could provide pollution free energy resources for many years to come.

Viewed together, coal gasification, shale gas and oil could meet most of the energy needs for the whole country for the next century. All we need is to develop the technology to provide this synthetic fuels process. The problem is that the technology is expensive. The uncertain economics of fuel conversion projects combined with the large capital investment required for private financing is difficult today.

I think this bill is in the best tradition of the free enterprise system, of the Federal Government working in partnership with private enterprise. I have no doubt in my mind that with this kind of an incentive it will pay off handsomely for the people of the State of Ohio and for this Nation. I suggest this is an excellent bill and I think we should support it here in the House. H.R. 3930 will, I believe, provide an answer to many of our energy problems and it can provide us an opportunity for access to abundant fuel sources other than oil and gas. I am pleased to be a cosponsor.

Mr. MOORHEAD of Pennsylvania. Mr. Chairman, I yield 3 minutes to the gentleman from Ohio (Mr. Seiberling).

Mr. SEIBERLING. I thank the gentleman very much.

I want to commend the gentleman and his committee for bringing up this legislation. It is certainly timely and extremely important to our future energy independence.

I am concerned, however, that this bill says nothing about who owns the fruits of the money that the Federal Government would put in under this bill, in terms of any energy technology that is developed with that money. We already have existing law, in the Federal Non-Nuclear Energy Research and Development Act of 1974, Public Law 93-577, which provides in section 9 thereof that whenever any invention is made or conceived in the course of or under any contract of the administration—and that would now be the Department of Energy—and the Secretary determines that the person who made the invention was employed or assigned to perform research, development or demonstration work during the course of the carrying out of the contract, or using Government funds, or the invention is related to the contract or the work or duties he was employed or assigned to perform, the title to such invention shall vest in the United States unless in particular circumstances the administrator waives all or any part of the rights of the United States to such invention in conformity with the provisions of that section. Then it sets forth various criteria for the Secretary to follow in deciding whether to grant a waiver.

I would just like to ask the distinguished gentleman from Pennsylvania if it is his intention that technology developed with Government money or pursuant to Government contract under this statute or under this bill will be subject to section 9 of the act that I refer to, in terms of the right of the United States to any such technology?

Mr. MOORHEAD of Pennsylvania. Mr. Chairman, will the gentleman yield?

Mr. SEIBERLING. I yield to the gentleman.

Mr. MOORHEAD of Pennsylvania. I would say to the gentleman that clearly this act does not explicitly amend or repeal the Federal Non-Nuclear Energy Research and Development Act. I would assure the gentleman that it is not the intention of the committee to implicitly repeal or amend that act. It continues in full force.

Mr. SEIBERLING. It is not only a question of repealing that act. It is a question of whether it applies to the research and development that is the result of the enactment of this bill?

Mr. MOORHEAD of Pennsylvania. That act continues in full force and effect under the intention of the committee.

Mr. SEIBERLING. If it is in full force and effect, but not applicable to this program, then I will feel constrained to offer an amendment to make it explicitly apply.

Mr. MOORHEAD of Pennsylvania. I agree completely with what the gentleman has said. Section 9 is in full force and effect and it applies to this program. We do not purport to touch that act.

Mr. SEIBERLING. I thank the gentleman.

Mr. MCKINNEY. Mr. Chairman, will the gentleman yield?

Mr. SEIBERLING. I will yield.

Mr. MCKINNEY. I would like to say to the gentleman I think it is our clear legislative intent by this colloquy that we do not intend for the Government to depart from this practice in the law and it should also be part of this legislation.

Mr. Chairman, I yield 2 minutes to the gentleman from New York (Mr. Green).

(Mr. Green asked and was given permission to revise and extend his remarks.)

Mr. GREEN. Mr. Chairman, today's debate will touch on subjects of concern to all of us, energy, national defense, the environment, and the cost of Government. H.R. 3930 authorizes an appropriation of \$2 billion of taxpayers' money, and that is something that none of us takes lightly. The bill further involves matter of crucial importance to our environment and I would like to address myself to these issues.

As a member of the subcommittee that developed this bill, I assert that it in no way relaxes the requirements of the National Environmental Policy Act. The issue has arisen because of language on page 5, lines 12 to 14 of the bill, which provides that—

Purchases, commitments to purchase, and resales . . . under such subsection may be made without regard to the limitations of existing law . . .

That language is not newly drafted language. In fact, it has been taken virtually verbatim from long-standing language in the Defense Production Act which can be found at title 50, United States Code, appendix section 2093. I think that language, as has historically been the case, is intended strictly to deal with the necessary overriding of normal Government procurement practices, which is implicit in the Defense Production Act. That it does deal simply with those issues I think is made clear on page 7 of the bill, line 23, where the power that is granted to the President is very specifically described as a "procurement power."

Mr. Chairman, H.R. 3930 proposes bold action in response to a crucial defense need: Energy; and this is a problem shared by our whole society. Many Americans doubt that the Congress is willing to take the steps necessary to address our energy crisis and defeat of this bill would reinforce that impression.

How much longer can the United States afford to neglect the development of a domestically controlled energy source, synthetic fuel? South Africa, Brazil, Canada, and other countries have already made substantial progress in this regard. Yet, to date, the United States has virtually no capacity to produce synfuels. I suggest that we cannot afford to wait much longer, and that we must recognize that liquid fuels are essential to our national defense.

A recent study done by the Census Bureau for the National Science Foundation indicates private spending in this country in 1978 for the research and development of synfuel production was a little over \$200 million. In the previous year, \$7.8 billion of private money was spent exploring for conventional sources of oil and gas in the United States. The nature of the technology and the risk involved in synfuel development make it difficult for private concerns to raise the necessary capital. The primary objectives of H.R. 3930 are to facilitate the raising of this necessary capital and to stimulate synfuel production in the private sector.

By continuing to neglect synfuels, we will not be serving our economy, our environment, or our constituents since all of these will suffer in the long run if we fail to act. I urge strong support for H.R. 3930.

Mr. JEFFORDS. Mr. Chairman, will the gentleman yield?

Mr. GREEN. Yes, I will yield to the gentleman from Vermont.

(Mr. Jeffords asked and was given permission to revise and extend his remarks.)

Mr. JEFFORDS. Mr. Chairman, I rise in support of the bill.

Mr. Chairman, I would like to address the synthetic fuels issue with respect to the Moorhead bill and in a more general sense.

I am a cosponsor of the Moorhead bill. We need to insure our country's energy viability in the event of a defense emergency, and the only way to do that is to promote the development of a synfuels industry. The Moorhead bill does not, however, address the full scope of the fuel shortage problem that this Congress must deal with.

If this Nation is ever to free itself from the tightening grip of the OPEC oil cartel, we must provide the general public with an alternative to buying OPEC oil. That means this Congress must look beyond emergency defense needs and provide some answers to the confused and angry consumers waiting in long lines at gas pumps all around the country.

Yet at this time when everyone is looking for the bill to end the future gasoline crisis, I think it is important that we act with some deliberation and that we do not ignore some very good ideas that are coming along. We must be extremely careful not to hastily pass legislation that may have unintended consequences in the future. Furthermore, we must not handle the fuel shortage issue in a partial and shortsighted manner.

On June 6 a bipartisan group introduced the bill that is now H.R. 4345. Today that bill has 104 cosponsors. They include the following Members:

COSPONSORS OF H.R. 4345

Daniel K. Akaka, John Anderson, Al Baldus, Berk Bedell, Douglas K. Bereuter, James J. Blanchard, William Broomfield, John Buchanan, M. Caldwell Butler, Beverly Byron, Tim Lee Carter, Shirley Chisholm, Tony Coelho, Barber Conable, Silvio Conte, John Conyers, Tom Corcoran, James A. Courter, Norm D'Amours, Thomas Daschle, Thomas Downey, Don Edwards, Dave Emery, Arlen Erdahl, John Erlenborn, Allen Ertel.

Millicent Fenwick, Paul Findley, Joseph L. Fisher, Ben Gilman, Dan Glickman, Bill Goodling, Bill Gradison, Charles Grassley, Lamar Gudger, Tennyson Guyer, Gus Hawkins, Cecil Heftel, Margaret Heckler, Elwood Hillis, Harold C. Hollenbeck, Larry Hopkins, Frank Horton, William Hughes, Henry Hyde, Jim Jeffries, Jim Johnson, Ray Kogovsek, Jim Leach, Gary Lee, Norman Lent, Ed Madigan.

Ed Markey, Dan Marriott, Roman Mazzoli, Bob McEwen, Robert McClory, Paul McCloskey, Stewart B. McKinney, George Miller, Norm Mineta, Donald Mitchell, Joe Moakley, William Moorhead, Austin Murphy, Stephen Neal, Richard Nolan, George O'Brien, Leon Panetta, Jerry Patterson, Claude Pepper, Carl Perkins, Tom Petri, Melvin Price, Joel Pritchard, Carl Pursell, Tom Rallsback, Nick Rahall.

Fred Richmond, Toby Roth, Harold Sawyer, James Scheuer, Keith Sebelius, F. James Sesenbrenner, Jr., Paul Simon, Virginia Smith, Olympia Snowe, Gerald Solomon, Arlan Stangeland, Louis Stokes, Thomas Tauke, Frank Thompson, Bob Traxler, Doug Walgren, Bill Wampler, James Weaver, Ted Weiss, G. William Whitehurst, Charles Wilson (Texas), Larry Winn, Howard Wolpe, Chalmers Wyllie, Gus Yatron.

H.R. 4345, the Replacement Motor Fuels Act of 1979, introduces a concept which relies primarily upon the free enterprise system to solve the motor fuel problem. It mandates that, by 1987, refiners replace 10 percent of the motor fuels they produce with alternative fuels, whether they be derived from coal, oil shale, tar sands, or renewable resources such as corn, wood or garbage.

Time magazine called this concept "The Idea of the Week" a couple of weeks ago, and quoted the president of Ford Motor Co. as saying

that "it would get the alternative energy industry off the ground, unendangered by politics and paperwork. Also it would cost the taxpayers nothing."

This concept is also one which complements any of the other synfuel proposals we are discussing, including the Moorhead bill and bills calling for tax credits or Government corporations. In fact, the Subcommittee on Employment Opportunities adopted H.R. 4345 as part of Chairman Perkins' energy bill last week, and the full Education and Labor Committee is expected to report that bill out tomorrow.

Several experts testified about the bill before the Employment Opportunities Subcommittee, and endorsed the concept. Ted J. Pollaert, manager of the Synfuels American Lurgi Corp., commented about the bill:

I am not sure that all of my clients like to hear this, but I suspect that a mandate that says: By a certain date, or by a certain year, a certain percentage of your fuel shall be synthetic, is the most effective weapon to get this industry going.

Frederic W. Hammesfahr, of Hammesfahr, Winter and Associates, Inc., who has been involved in developing and commercializing advanced energy technology for over 25 years, said:

I think that it is a very good idea and an excellent approach to the problem.

H.R. 4345 creates an assured market for substitute fuels. But rather than accomplishing this through Government subsidies, it allows the market forces of the free enterprise system to determine the best technology to be used for the replacement of petroleum-derived motor fuels with alternatives. In this way, the bill promotes the development of a synfuels industry in the most efficient possible way.

According to another expert who testified before the Employment Opportunities Subcommittee, this approach provides industry with essential flexibility. It also overcomes "one of the big hurdles in the successful operation of this type of undertaking," in the opinion of Dr. Clarence Larson, an energy consultant. It does this by guaranteeing that companies who seek to raise money on the bond market can show purchase contracts for their products.

The idea behind H.R. 4345 is patterned after the mandates we have placed on the auto industry to reach a goal of 27 miles per gallon by 1984. In fact, Mr. Pollaert, the witness I quoted earlier, said on this approach:

When I look at these things, I am impressed at what has happened in the automobile industry . . . If I compare that to any other approach, such as making millions of dollars available to develop some specific engines, or specific car models, it obviously is the most effective method and the least bothersome method to get anything done.

In light of the fact that we are supposed to consider the windfall profits tax bill this week, it should be pointed out that this bill would help insure that the oil companies spend their profits from decontrol on developing energy alternatives. It would force refiners to begin phasing in substitute fuels in 1981, which means that they would have to start investing in new technologies as decontrol takes effect.

Refiners could mix the fuels themselves, or contract with others with others to do it. They would have flexibility to alter their percentages at different times of the year and among the geographic regions they

serve. If they failed to meet the goal at the end of the year, they would be fined a dollar for each gallon of fuel sold in violation of the law.

It is important to note that our bill will work with or without decontrol. Those of us opposing decontrol—and I happen to be in that category—have an obligation to come up with an alternative. This legislation can fulfill that obligation. Those who favor decontrol must find a way to assure excess profits will be put to good use. The bill could also accomplish that purpose.

It should also be understood that we are not proposing a venture into the unknown. Brazil already mandates 10 percent gasohol, and big oil companies such as Exxon and Texaco have complied. South Africa now produces synthetic gas from coal. Germany used liquified coal in World War II. With the research and experience behind us, and with the vast natural and technical resources available to this country, we can do it better and cheaper.

The 10 percent replacement goal is expected to produce at least 800,000 barrels per day of alternative fuels. The capital requirements of this enterprise are less than either the cost of decontrol or continued dependence on oil imports. Furthermore, the per-barrel cost of replacement fuels is already competitive with the higher range of current oil costs.

While CBO estimates that decontrol will cost consumers \$12 billion annually by full implementation in 1982, the capital required for each 50,000 barrel per day synfuels plan is \$1 to \$2 billion, or \$16 to \$32 billion for a total of 800,000 barrels per day. Recent spot market prices for imported oil have averaged \$30 per barrel, and up to \$50 in Rotterdam. At the same time, reliable estimates put the cost of coal-derived fuels at between \$20 and \$35 per barrel.

The cost to the consumer of 10 percent replacement can be computed:

Cost of a gallon of gasoline.....	\$1. 00
Reduced by 10 percent.....	-. 10
Total 90

Assuming replacement fuel costs of as much as \$55 per barrel refined, the cost of a gallon of replacement: \$1.31. (Or, one-tenth gallon in each gallon of gas equals \$0.13 per gallon for the cost of replacement fuel.)

Total per-gallon cost of the mixture is then:

Gasoline	\$0.90
Replacement fuel.....	. 13
Total	1. 03

Thus, even a very conservative estimate shows a price rise of less than 3 percent at the gas pump, in exchange for energy independence.

While the costs to the consumer would be very small, the costs to the taxpayer would be almost nonexistent. H.R. 4345 authorizes appropriations only for enforcement of the mandate and for studies required from the Secretary of Energy.

To anticipate a question you might well ask, if the idea is so sound, why hasn't our own Energy Department suggested it? One DOE spokesman gave me a candid answer that is not likely to be repeated publicly. DOE considered it, but has not used it because the oil companies did not like it.

Any realistic plan for energy independence requires substantial lead time. This bill does not provide a full answer today. But positive action by Congress will send crucial messages, to OPEC and to the major oil companies.

The message to OPEC will be that we have a serious program, putting us on the road to energy independence, and that the would be well advised to deal with us in a reasonable manner.

The message to the oil companies will be that Congress, rather than Big Oil, will be dictating America's energy policies from now on.

Mr. LAGOMARSINO. Mr. Chairman, will the gentleman yield?

Mr. GREEN. I yield to the gentleman from California.

(Mr. Lagomarsino asked and was given permission to revise and extend his remarks.)

Mr. LAGOMARSINO. Mr. Chairman, as a cosponsor of this bill, I think it is good legislation whose time is well past due.

I rise in support of H.R. 3930, The Defense Production Act Amendments of 1979. As a cosponsor of this bill, I would like to congratulate the gentleman from Pennsylvania (Mr. Moorhead) and the gentleman from Connecticut (Mr. McKinney) for developing this legislation in their subcommittee and for the expeditious and balanced manner in which they have proceeded.

It is rare that this House has an opportunity to act in such a positive fashion on a matter of such urgency, and I think the House and the Nation owe the gentlemen a debt of gratitude.

Mr. Chairman, the idea embodied in this bill is not a new one. The idea for such a proposal is at least as old as World War II, and the technology has been around for just as long. What has not been around, and what constitutes the unique contribution of this bill, is the incentive, the market. As we have already heard, the Germans were converting coal into gasoline all through World War II. South Africa has met the bulk of its petroleum needs the same way for many years. And the United States demonstrated that it could mount the same sort of production campaign when we switched from natural to synthetic rubber during the same period.

What has been lacking to accomplish the same feat with oil has been the incentive. Until the 1973 oil embargo, we enjoyed ready access to cheap fuel. We failed, unfortunately, to learn our lesson from the oil embargo and today we are again witnessing long lines at the gas stations, emphasizing once again our dependence on foreign supplies.

This bill provides us with the opportunity to do something about the problem before we face a real crisis. Through the simple yet effective process of authorizing the Department of Defense to, in effect, create a market for synthetic fuel, it supplies the missing key ingredient, the solution to the problem of how to stimulate and create a new industry in the United States.

And I emphasize that it will be within the United States. If this bill and this effort succeeds, and I think there is at least an even chance that it will, there will be no need to rely in the future on a long line of tankers reaching halfway around the globe, or transiting the Panama Canal, to heat our homes, power our cars, and fuel our industries. We will once again become at least much more self-sufficient in energy.

I would like to emphasize, Mr. Chairman, that this bill provides adequate safeguards to the environment and to our health. It prohibits violations or exemptions from existing health, safety, and environmental laws.

At the same time, it provides the incentives and the assurances needed to start us on the road to self-sufficiency in energy.

Mr. Chairman, at the end of this week we will be going back to our districts to mark the 203d anniversary of the Declaration of Independence. I urge all my colleagues to support this bill, as a declaration of our own independence from foreign oil. It is one habit we can break.

Mr. McKINNEY. Mr. Chairman, I yield such time as he may consume to the gentleman from Illinois (Mr. McClory).

(Mr. McClory asked and was given permission to revise and extend his remarks.)

Mr. McCLORY. Mr. Chairman, I thank the gentleman for yielding, and I rise in support of this legislation.

Mr. Chairman, the dilemma in which we find ourselves—with lines of cars at gas stations—could have been avoided by the exercise of better judgment—and by a clearer recognition that our private industrial concerns possess the potential for developing vast new and additional sources of energy.

Providing incentives to our private companies to risk their capital and resources is inherent in this legislation.

I should add that the concept which we are advancing here today comes almost 3 years after former President Gerald Ford proposed a similar program.

It is gratifying to observe that this House is coming at long last to support that part of the Ford administration program which an earlier Congress refused to support.

Our Nation—and our private industry—have the capability of developing vast amounts of synthetic fuels. The technology is already well known. The roadblocks which have discouraged private industry from proceeding thus far—have been placed in the path of industry by this Congress and by the bureaucracy which we have created.

By enacting this measure we will be removing at least that roadblock which penalizes the private sector today—if it should dare to produce synthetic fuels.

Mr. Chairman, there are many provisions of this measure which may prevent some of the most capable companies from taking advantage of the synthetic fuel program which we are here providing.

Mr. Chairman, I am in general—and enthusiastic—support of this bill, H.R. 3930.

Mr. McKINNEY. Mr. Chairman, I yield 2 minutes to the distinguished minority whip, my good friend, the gentleman from Illinois (Mr. Michel).

(Mr. Michel asked and was given permission to revise and extend his remarks.)

Mr. MICHEL. Mr. Chairman, I am a cosponsor of this piece of legislation as reported by the committee. The days of cheap fuel sources have passed. We must begin to take some concrete steps to develop and produce alternate sources of energy.

The day may come when we will not have any fuel available at any price. Positive action is long overdue, so I am particularly pleased to support the bill before us.

I think it would be misleading to say, however, that this bill will solve our energy problems in the immediate future. We have a long way to go and this is only a beginning.

This week when we consider the windfall profits tax legislation, it certainly is going to have as much of an effect on future oil and gas supplies as any other legislation that we will be considering during this session of the Congress. I do feel, however, that it is important we make this kind of a beginning.

The technology to produce liquid fuels is not new. In fact, the knowledge to produce an oil equivalent from coal has been around since World War II. Unfortunately, the costs have been too high for such synthetic fuels to be competitive with the cheaper alternatives which we have always had so readily available. There has been no incentive for the energy industry to pour the billions of dollars necessary into developing alternate sources which would have no guaranteed market.

This bill will provide an incentive by providing that the Government will be a guaranteed customer of the new fuel.

The bill further provides that the contracts with any one company will be limited so that several companies could be assured of a share of the Government market. If this does not provide the necessary stimulus to get the private industry moving, the bill further provides that the President may use standby authority to establish Government-owned corporations for the production of synthetic fuels and synthetic chemical feedstocks, subject to a congressional disapproval through the one-House veto.

As the cost of oil and other natural energy resources continues to rise, the natural incentive to produce synthetic fuel will grow as the prices for the alternative become more and more competitive. But it will take at least 5 years to get a plant in operating condition. If we do not get started now, there is no way we can hope to end our current enslavement to foreign energy politics in the foreseeable future.

We are all aware of our own vast resources of coal. I believe it is time we began a concentrated effort to find ways of putting our own natural resources to wider use. I strongly support this bill as the first step toward reducing our dependence on foreign energy sources while assuring this Nation of a continuing supply of vital fuels and feedstocks.

It is my understanding the majority leader will be offering an amendment during the reading of the bill under the 5-minute rule. My current support for the bill is with the projected goal of a half million barrels a day and the cost as projected by the committee. Now, if we go beyond that goal to some grandiose scheme that might require additional billions of dollars appropriated from the general funds, then I may have to part company with my distinguished friend from Texas. If the majority leader intends to change the national production goal of at least 500,000 barrels per day within 5 years to 2,000,000 barrels per day within 10 years then the thrust of this bill has been changed considerably. This legislation is designed to put America in a much stronger defense posture to deal with potential energy shortages stemming from our increasing dependence on foreign oil imports.

Changing our production goals this drastically worries me because of the large commitment of taxpayers' dollars which we would be making.

The CHAIRMAN. The time of the gentleman from Illinois has expired.

Mr. MCKINNEY. Mr. Chairman, I will yield 2 additional minutes to the gentleman from Illinois.

Mr. MICHEL. Mr. Chairman, I notice the distinguished majority leader on the floor, and I yield to the gentleman.

Mr. WRIGHT. Mr. Chairman, I appreciate the gentleman's comments. I would like to advise the gentleman that the amendment which I offer would make possible—in fact, facilitate—financing of any cost out of the revenues of the windfall profits tax. But, let me just say this: I feel quite confident that we can achieve a production goal of 2 million barrels a day in 10 years as easily as we can achieve 500,000 barrels a day in 5 years, or more easily.

I also feel very confident that it really is not going to cost us anything to do so because the rapid rate at which world oil prices are escalating, I am certain, will cause the crude oil price to reach and exceed the price for which we can produce this synthetic fuel by the time we have it in line, 4 or 5 years from now. In that case, the entire program would not cost us anything. It would be a saving to us, in fact, if we could cut down that much on OPEC oil that otherwise we would import.

Mr. MICHEL. It is my understanding that the text of the gentleman's amendment reads something like, either, or, and I am not altogether sure that I like that kind of flexibility. I would like to tie it down specifically. If we are going to have this trust fund, then that would be the specific source from which the money for these increased production levels is derived.

I have a reservation about moving toward such a large volume so quickly, and the temptation resulting from the large number of contracts involved ending in a new breed of pork barrel projects. I would rather move a little bit more slowly, but I readily agree with the gentleman that as we look down the road 4 or 5 years, we have got to increase the levels of our synthetic fuel production because we are not going to get further foreign sources of oil.

Mr. MOORHEAD of Pennsylvania. Mr. Chairman, I yield 2 minutes to the distinguished majority leader, the gentleman from Texas (Mr. Wright).

Mr. WRIGHT. Mr. Chairman, I thank the distinguished gentleman from Pennsylvania for yielding.

I should like to suggest, in response to thoughts expressed by my friend, the distinguished minority whip, first, that the reason it would not be possible irrevocably to tie any expenditure under this bill to an excess profits tax is because we do not have such a tax yet. But, I think my amendment has been written in such a way that it definitely can be financed from that tax, and I recommend that it be so.

The second thing I would like to say is that it is not at all unreasonable to look 10 years into the future and to make a commitment that this Nation can reduce our dependence on foreign oil by 2 million barrels a day. In my view, that surely should not be referred to as pork barrel. As the gentleman will recall, in the last 6 years we have given

a windfall to the Arabs of more than 2 million barrels a day. In 1973, we were importing 6.2 million barrels daily. Now, we are importing 8.6 million barrels daily. We have retrogressed in 6 years to the extent of 2.4 million barrels.

To set a goal of greater self-sufficiency within the next 10 years of 2 million barrels a day, is not excessive.

Mr. MOORHEAD of Pennsylvania. Mr. Chairman, I yield 3 minutes to the distinguished gentleman from Pennsylvania (Mr. Gaydos).

(Mr. Gaydos asked and was given permission to revise and extend his remarks.)

Mr. GAYDOS. Mr. Chairman, as the House is preparing to authorize billions of dollars to promote the development of synthetic fuels, we should be fully aware of the frightening health hazards to workers that these processes may present. Studies of existing oil shale and coal liquefaction and gasification processes, as well as studies conducted in similar industries, show cause for serious concern. Workers may be exposed to toxic substances in the handling of raw materials, in maintenance operations, in cleaning up spills, and in transporting the finished products. A list of harmful substances that may be present in coal gasification and liquefaction plants include those that cause cancer, such as arsenic, benzene, beryllium, hexavalent chromium, and coal tar pitch volatiles. It also includes substances that can cause nervous system damage such as hydrogen sulfide, lead, and mercury.

I would like to insert in the Record, following these remarks, a list of the toxic agents and the potential health effects NIOSH has identified as being associated with coal gasification.

In proposing that Federal funds be used to promote these new energy technologies, we must assure that appropriate steps are taken to protect the health and safety of the workers in these industries. The time to prevent these problems from developing is now while these plants are still in the pilot and demonstration stage. Research on health effects, safety hazards, and engineering control must be an integral part of the development of these technologies so that new plants can be designed with safety—as well as productivity—in mind.

I ask the chairman, for the purpose of establishing legislative history of some sort, whether he can give some assurances that the committee intends that worker health and safety is of prime concern in the design of facilities developed with the aid of this program and the program conducted by NIOSH, to be conducted by this program.

Mr. MOORHEAD of Pennsylvania. If the gentleman will yield, I want to emphasize and reemphasize that this is merely a financing bill. It does not purport to, nor does it amend or repeal any other acts, so that OSHA, or mine safety, all other laws remain in effect and must be complied with. This is merely a financing mechanism. It does not repeal environmental laws. It does not repeal the matter the gentleman from Ohio (Mr. Seiberling) referred to, nor the concerns of the gentleman from Pennsylvania, who has been such a hero in working for the safety and protection of workers.

I can assure the gentleman that there is no intention to alter those basic laws.

Mr. GAYDOS. With this assurance, Mr. Chairman, I concur in this very timely legislation, and wish to commend my colleague for its introduction. I very strongly support the legislation.

Mr. MOORHEAD of Pennsylvania. Mr. Chairman, I yield such time as he may consume to the gentleman from Missouri (Mr. Ichord).

(Mr. Ichord asked and was given permission to revise and extend his remarks.)

Mr. ICHORD. Mr. Chairman, I rise in support of H.R. 3930 and commend the gentleman from Pennsylvania (Mr. Moorhead), and the Committee on Banking, Finance and Urban Affairs, for reporting this bill to the floor.

The bill follows an approach similar to the approach we used in World War II to develop a synthetic rubber industry. The time is long overdue for us to develop a synthetic fuels industry. I do not have the exact numbers at hand but we all know what has happened to oil imports since the Arab embargo in 1973.

Instead of decreasing our reliance upon imports we are more dependent today than we were in 1973. In 1973 we imported about 25 percent of our oil needs. Today we are importing close to 50 percent. We must not only reverse the adverse trend, we should develop a policy of energy independence. Our dependence upon foreign oil to meet our energy needs has become a national security problem. H.R. 3930 is not a quick-fix. There is no quick-fix to our energy problems. But H.R. 3930 is a viable long-term vehicle to help solve our energy problems.

Coal gasification, for example, is a technology that we do not have to wait for. It is a technology in being and one which has been in being for many years. The Germans used it in World War II. The South Africans, using German technology, improved by American technology, and with the help of an American engineering firm have had a gigantic coal gasification plant, SASOL No. 1 in operation for many years.

It is high time that we encourage the installation of facilities such as SASOL in this country rather than discourage them as we have in the past.

I wholeheartedly endorse H.R. 3930 which represents a valuable first step in the United States attaining energy self-sufficiency.

Mr. MOORHEAD of Pennsylvania. Mr. Chairman, I yield 2 minutes to the gentleman from West Virginia (Mr. Rahall).

(Mr. Rahall asked and was given permission to revise and extend his remarks.)

Mr. RAHALL. Mr. Chairman, I rise in strong support of the pending legislation, and want to commend the distinguished gentleman from Pennsylvania (Mr. Moorhead) for his initiative in this regard. I wish to commend also the distinguished majority leader of this body, the gentleman from Texas (Mr. Wright) and the leadership of the House for their strong support of this synthetic fuels legislation.

I note also that it does have the support of the administration, and although rather late in coming, and perhaps rather begrudgingly, I commend the administration for its support of this legislation also.

I think perhaps everyone would like the initiative for synthetic fuels legislation and the entire financing of it to come from private industry. However, as has been pointed out, because of the tremendous cost involved, such an approach is not feasible. What we are doing here today is not setting up a Government corporation, but merely a Government partnership with private industry and, indeed, a Government partnership with the people of this country.

It is appropriate that we meet today to consider this legislation on the day OPEC is meeting in Geneva to consider almost certain price increases that the American people will pay for gasoline and crude oil. So, Mr. Chairman, I hope that through this legislation today we can take the first step, and perhaps through the amendment process even beef up the process by which this country strives to break the grip the foreign oil cartel holds upon us; and through development of our domestic resources for coal liquefaction and gasification we can, indeed, provide the American people strong indications that the Congress is serious about our energy situation, that we can make ourselves self-reliant and free of any foreign oil cartels.

Mr. MILLER of Ohio. Mr. Chairman, my major disappointment with H.R. 3930 is that it is a program that we should have started years ago. Back in 1975 and 1976, I recall we had a similar synthetic fuels bill proposed but we never had an opportunity to bring it out to the House floor.

Nevertheless, H.R. 3930 is a good start to create a new commercial industry that can help free this country from the stranglehold OPEC has on us. I am pleased to be a cosponsor of this bill and I hope we might even broaden its scope here on the floor today. I understand the gentleman from Texas (Mr. Wright) will offer an amendment to increase the production goal to 2 million barrels per day. I intend to support that amendment and I hope it will be approved.

To date the congressional response to the energy crisis, and it is and has been a real crisis since 1972, has been to allocate fuel shortages. Congress has done very little to encourage and promote more energy production in this country. This head-in-the-sand posture in large measure is responsible for the long lines at pumps throughout the country and the skyrocketing gasoline prices people are forced to pay if they can find gasoline. The American people have been led to believe that Congress has been looking out for the national interest. To the contrary by its negative actions of control and allocation, Congress has forced the United States to grow more dependent on foreign energy sources.

In 1973 we imported 35 percent of our oil. Today it is over 50 percent. We stand at the mercy and whim of foreign oil cartel. Back in April 1972 I wrote in a newsletter to my constituents in Ohio's 10th District that—

Our country is facing a monumental energy shortage, the effects of which will be felt not only throughout the business sector but into every industry, household and institution in the nation . . . the energy crisis is no longer a vague future threat. Unless comprehensive energy policies designed to encourage the development of domestic supplies are formulated, the record volume of oil imports will undoubtedly have a profound effect on domestic energy strategy, on the U.S. balance of trade, and on foreign policy decisions for years to come. We cannot allow the energy situation to drift.

During those intervening 7 years the energy situation has drifted and we still have no comprehensive energy policy that in 1972 I thought was a self-evident priority.

In acting on H.R. 3930 let us not leave the impression that synthetic fuel production will solve the crisis. It is but a part, a very important component, in a mix of programs that we must have to free up more domestic production and lessen offshore reliance. The energy crisis did not just happen overnight and it will not be solved overnight nor by a

single governmental action. A viable synfuel industry will take years to bring on line but no matter how much precious time we have frittered away yesterday, today we have a significant opportunity to take a positive action that will return tangible dividends in the long term. In the months and years ahead our situation I regret to say will further deteriorate because of what we will have failed to do or what we have done without foresight. Personal hardships and economic dislocation will plague the American people for some time. But it is a fact that unless we pass this important bill with hopefully a greater production commitment there will be no light at the end of a long, dark, and dangerous tunnel we are traveling.

Therefore, I urge that we act promptly on this measure. Let it also signal to the American people that their legislators have abandoned the ruinous "share the shortage" mentality of the past for a bold new design that harnesses all the ingenuity of American industry to develop and use the vast energy potential we have waiting us in this country.

Mr. McKINNEY. Mr. Chairman, I yield such time as he may consume to the gentleman from Ohio (Mr. Miller).

(Mr. Miller of Ohio asked and was given permission to revise and extend his remarks.)

Mr. MILLER of Ohio. Mr. Chairman, I rise in strong support of H.R. 3930.

[Mr. Miller of Ohio addressed the Committee. His remarks will appear hereafter in the Extensions of Remarks.]

Mr. McKINNEY. Mr. Chairman, I yield 2 minutes to the gentleman from Delaware (Mr. Evans).

(Mr. Evans of Delaware asked and was given permission to revise and extend his remarks.)

Mr. EVANS of Delaware. Mr. Chairman, as one of the original co-sponsors of the Defense Production Act, I rise in strong support of H.R. 3930. Part of our energy problem today is that we have not taken enough action in the past. We must begin or we will forever be dependent on a bunch of sheiks in the Middle East who should not and must not set our domestic and foreign policy.

We are long overdue in developing alternative sources of energy through the genius of American technology. This bill is not the total answer, but it is a substantial step in the right direction. It does provide proper incentives for the enormous capital investment necessary to develop synthetic fuel capability. If we think our problems and our lines at the gasoline stations are long today, they could get worse. So I support this bill, and I congratulate the gentleman from Pennsylvania (Mr. Moorhead) and the gentleman from Connecticut (Mr. McKinney) for their leadership on the Committee on Banking, Finance and Urban Affairs in bringing this bill to the floor of the House.

Mr. McKINNEY. Mr. Chairman, I yield 2 minutes to the gentleman from Texas (Mr. Paul).

(Mr. Paul asked and was given permission to revise and extend his remarks.)

Mr. PAUL. Mr. Chairman, everybody today here, is agreed upon the fact that action must be taken in promoting synthetic fuels. Unfortunately, I believe the type of action we're taking is incorrect. We

are going to be making mistakes, and we are going to be spending a lot of money, and we really are not going to get any more synthetic fuel than we already have, because we already have access to synthetic fuel.

A lot of talk is being put out today about how much hostility we should direct toward the Arabs for creating this problem and criticize them for how much they are charging us for their oil. But I might draw to the attention of the Members this one little fact, that if we try to measure oil in something of real value. In earlier times and throughout most of history money was related to something of intrinsic value. In 1964, if one happened to have one silver dollar, he could go down to the gas station and buy 4 gallons of gasoline. Today if one happened to have struggled to get and or keep one of those silver dollars, he could take it and go down to the gas station and buy 7 gallons of gasoline, which means the Arabs are getting very little for their oil in terms of real value.

The problem here is not only energy and regulation, the problem we face is inflation as well. We are not discussing inflation today and it is very difficult to solve the energy problem without addressing this subject. We are talking today about how we are going to compensate for all the bad effects of inflation by doing something which in reality will make the problem worse. Just by doing something we are determined to go out and spend more money. We are going to create credit. We are going to expand its credit markets. We are going to distort credit markets, which is so often the situation, with almost all legislation and make the basic problem of inflation worse.

I have seen estimates for synthetic fuels programs going as high as \$200 billion, an amount that is astronomical. Some are concerned if it gets too high, and will not vote for it. But all boondoggles have to start someplace. We plant a little seed that grows into a large tree. We are planting the seeds today for a synthetic fuel pork barrel, and it is bound to grow and become a very, very large tree.

The gentleman's earlier suggestion that this would cost us nothing is rather provocative because I am very suspicious that it is going to cost us a whole lot.

I think the basic assumption here is that we are smart, that the Congress is smart, that the bureaucrats are smart, and yet in truth we do not have the vaguest idea of what we are doing. The arrogance that we display by supposing that we know just which fuel is best, which price is best and just when we should quit using fossil fuels and go to synthetic fuels demonstrate to me that this Congress does not have the vaguest notion about the marketplace and how it operates.

The CHAIRMAN. The time of the gentleman from Texas (Mr. Paul) has expired.

Mr. McKINNEY. Mr. Chairman, I yield 2 minutes to the gentleman from Mississippi (Mr. Hinson).

(Mr. Hinson asked and was given permission to revise and extend his remarks.)

Mr. HINSON. Mr. Chairman, I rise on behalf of H.R. 3930, the Defense Production Act amendment and extension. Detractors of this proposal have asserted that it is not a defense bill. They would argue that its purpose is not to prepare us for the contingency of war. They

are mistaken. It is only a first step in a process in the development of a production capacity for synthetic fuels, which, coupled with domestic petroleum production, will prevent our possible military vulnerability from lack of liquid fuels.

But it is a defense bill in another sense. Dependency on imported fuels threatens our economic security which is clearly inseparable from our military security. This struggle is not a possible future contingency. It is here and now, and we must meet the challenge or watch our economic life's blood siphoned away by the extortive policies of nations whose good will toward us is, to say the least, questionable.

Some question the feasibility of synthetic fuel technology. But the technology is not new or even experimental. From 1942 onward until the victory of the Allies, the fuel on which the German Army moved and fought was in a substantial and ever-growing proportion, synthetic. Today's technology is much advanced over the primitive state of that time. Brazil is producing gasohol and synthetic natural gas economically from biomass conversion. South Africa is heavily engaged in coal conversion to an array of synthetic fuels, from high-grade gasoline and synthetic natural gas to diesel fuels and jet propulsion fuel. And, they are using American technology to do it.

The economic feasibility of synthetic fuels also has been questioned. When the price of petroleum fuels is determined by monopolies beyond our control, almost any alternative becomes economical. At this very moment the energy shieks are deciding how much of the wealth we produce they will take and what part they will leave us with, and we have little to say about it. This bill will only give birth to a new industry. Either that industry will place a lid on the level of extortion or the prices demanded by OPEC will make synthetic fuel production a growing, self-sufficient alternative. I have no sympathy with the attitude that says we must merely be OPEC's victims. Willing victims deserve their fate. Americans are not now and never have been willing victims of anyone, whether it be in the American Revolution, or the petroleum revolution.

This endeavor resembles no program in our Government's history so much as our World War II development of a synthetic rubber industry. That effort was also expensive. Yet the Government was able to recoup over 96 percent of its investment from the sale of its interests in the new industry, not including the tax revenues and employment thereby generated as well as the great contribution to the war effort. We can do just as well with synthetic fuels.

With our massive coal and oil shale reserves, and our present incidental generation of vast biomass materials which are almost entirely unused, this bill is tailor made to resources in which we are as rich as Croesus. It may not be the ultimate answer to the energy crisis, but it is a start. It is certainly better than mere wailing and gnashing of teeth in a gas line. I urge your support for H.R. 3930.

Mr. Chairman, I wish to commend the distinguished chairman of the subcommittee, the gentleman from Pennsylvania (Mr. Moorhead) and the distinguished ranking minority member of the subcommittee, the gentleman from Connecticut (Mr. McKinney).

Mr. MOORHEAD of Pennsylvania. Mr. Chairman, I yield 1 minute to the distinguished chairman of the Committee on Science and Technology, the gentleman from Florida (Mr. Fuqua).

(Mr. Fuqua asked and was given permission to revise and extend his remarks.)

Mr. FUQUA. Mr. Chairman, today I want to speak in strong support of the Moorhead bill, H.R. 3930, and to congratulate him for working so hard to report a bill to the House that can do something positive about energy production.

As a member of the Science and Technology Committee, I was privileged to work with Mr. Moorhead when our respective committees reported out the loan guarantee provisions contained in H.R. 12112 and subsequently enacted as Public Law 95-238. I very much appreciated his support at that time for our efforts in science and technology to provide guarantee authority to get some substitute fuel plants built.

Today's bill takes a direct approach toward energy production by setting a goal for substitute fuel production for national security purposes. The bill is not discriminating as to type of fuel or technology, but wisely leaves these decisions to the persons implementing the act.

The bill makes available a variety of strategies which can be offered to potential applicants in order to be assured the requisite production such as loan guarantees, take or pay contracts, or price supports.

I applaud the committee for its objectives and for its approach which offers new authorities with a refreshing absence of reliance on the regulatory approaches which often appear designed to create more problems than they solve. In the work of the Science and Technology Committee, we have learned again and again that there is a crying need to build some first-of-a-kind plants. We need the assurance and certainty that only comes with the hands-on experience of building substitute fuel plants in this country. A plant that is built to produce low or medium Btu coal gas can be substituted for imported oil in the industrial sector. High Btu coal gasification technology can be used today with western coals with even more flexibility. Its applications can be directly substituted for the generation of power, or in industrial markets, and free valuable oil for the transportation market. Although American companies design and build plants around the world, none have been built here.

The coal technologies which have been funded by the Science and Technology Committee, have been targeted to eastern coal use. These second generation plants will produce both liquids and gases. For example, SRC-II, which has been strongly endorsed by several committees, will produce approximately 75 percent liquids and 25 percent gas, but may be optimized for a higher yield of gas, depending on the economics of the coal, the location of the plant, and user requirements.

Mr. Chairman, I want to take one more minute to state, unequivocally, that now is the time to act. The U.S. Congress has been ahead of the administrations that have come and gone since the first Synthetic Fuels Act of 1944. In many ways, our world position vis-a-vis 1944 is far more difficult. We need an assured source of supply and we need to develop the technology to take advantage of our abundant coal reserves, oil shale reserves, and agricultural lands and skills that are underutilized.

I thought it would be instructive to all Members to briefly review the record of the Science and Technology Committee and of the Congress that has continuously supported it. The Science and Technology

Committee received all nonnuclear energy R. & D. jurisdiction in 1975 and immediately started its efforts to accelerate energy production technologies. Basically, the record shows that we have taken the lead in several areas by adding authorization for specific pilot plants and second generation demonstration plants, as well as legislating loan guarantee authority for full-sized first-of-a-kind plants.

The fiscal year 1976 authorization, Public Law 94-187, contained funding for two coal liquefaction plants, H-coal, which was authorized for design funding, and an existing Bureau of Mines pilot plant, Synthoil. In addition the solvent refined coal (SRC) pilot plant was supported with operating funds. New congressional activities contained in the 1976 authorization were one high Btu synthetic gas demonstration plant (76-1-b), one low Btu fuel gas demonstration plant (76-1-c), and one fluidized bed direct combustion demonstration plant (76-1-d).

Also during that year, our committee undertook its first efforts to legislate loan guarantee authority beginning with hearings in the full committee on September 18, 1975. Of these initiatives, the H-coal plant, located in Catlettsburg, Ky., which I recently visited, is completing construction and some sections of the plant are now in the shakedown phase with planned 1980 operation. The Department of Energy has not yet made a final decision on the award for the first high Btu demonstration plant. The low Btu and fluidized bed demonstration plants appear to be in limbo.

The fiscal year 1977 authorization, Public Law 95-39, continued the same pattern of new congressional initiatives. The donor solvent pilot plant to produce coal liquids was authorized for design work that year. This plant is now in its final stages of construction at Baytown, Tex., and is planned to undergo shakedown operations in calendar year 1980. In addition, the smaller SRC plant at Wilsonville, Ala., was authorized. The two SRC pilot plants were able to develop data which provided confidence for the SRC-II technology for coal liquids and for sorting out the filtration problems which had to be overcome to make SRC-I an attractive option for coal conversion.

In addition, the committee authorized a second high Btu pipeline gas demonstration plant (77-1-b) and a low Btu gas demonstration plant (77-1-c). Regrettably, these plants, which have had the strongest support in both bodies and in both the Authorization and Appropriations Committees, have not been aggressively pursued by the administration.

During the fiscal year 1977 authorization, the committee added an initiative for a coal solids plant, SRC-I. This initiative was followed last year when we added a coal liquids plant, the SRC-II demonstration plant. All of the demonstration plants have been congressional initiatives. I am pleased to report that the SRC plants are being funded by the DOE for phase O design. The DOE commitment to construction of the two plants remains unclear.

I did not plan today to get into the specifics of the loan guarantee authority that was enacted into law in Public Law 95-238. However, that authority does contain another committee initiative for oil shale demonstration which has been strongly supported by the Appropriations Subcommittee on Interior and related agencies, chaired by Mr.

Sid Yates. Through his efforts, the DOE is now actively seeking a partner for an above-ground oil shale retort demonstration plant and plans to award the design phase contract in fiscal year 1980.

Mr. Chairman, I hope these brief remarks will serve to indicate that the Congress has been toiling in the vineyards these past several years, taking the initiative and expressing serious reservations about the lack of an aggressive Federal program. I am personally proud of our record, and can only say that we would be far better off today if we had several plants built, or at least under construction, instead of just the two coal liquefaction plants, H-Coal and Exxon donor solvent.

I am pleased to say that Mr. Moorhead has also worked with me to clarify the intent of the bill before us. My concerns have been very limited ones and I hope they are viewed as perfecting in nature only. As I said earlier, our two committees have an enviable record of working together and it is my feeling that cooperation is absolutely vital to achieve the goals of energy production we jointly seek.

Mr. MOORHEAD of Pennsylvania. Mr. Chairman, I yield 2 minutes to the gentleman from Texas (Mr. White).

(Mr. White asked and was given permission to revise and extend his remarks.)

Mr. WHITE. Mr. Chairman, I want to pose four questions, if I may, to the chairman of the subcommittee, the gentleman from Pennsylvania (Mr. Moorhead). Inasmuch as I have such short time, I will pose all of them together. I refer first to page 5 for the gentleman for the questions.

Mr. MOORHEAD of Pennsylvania. If the gentleman will yield, is that page 5 of the bill?

Mr. WHITE. Page 5 of the bill.

In subsection (1) it states—and I will ask all of the questions and then I will ask for the answers—it says:

“(1) contract for purchases of or commitments to purchase synthetic fuels and synthetic chemical feedstocks which may be used as fuels and feedstocks for Government use or resale;”

The first question, then, is, Is there intended to be any kind of definition or limitation as to whom resale can be made? Can this resale be made abroad?

The second question pertains to the bottom of that page in subsection (1) where it says:

“(1) no contract for purchases or commitments to purchase may be entered into after September 30, 1995, or the achievement of the production goal authorized in subsection (a), whichever occurs first;”

Would this in effect cause production to be held down, in other words, perpetuate the corporation? Would it, indeed, be not a stimulus but a disincentive to competition or the attainment of the goal?

Mr. MOORHEAD of Pennsylvania. If the gentleman will yield, this bill is intended to work for total production, so it is the intention to shorten that time rather than to extend it.

Mr. WHITE. The third question is, it says on page 8:

“(e) The procurement power granted to the President by this section shall include the power to transport and store and have processed and refined any products procured under this section.”

Does that mean, then, that the Government can refine or go into the refining business itself, or would it mean that legislatively the gentle-

man's intention would be that they would then contract for the refining? In other words, would we then have a Government corporation going into the refining business and have, in other words, a nationalized Government oil refining business?

Mr. MOORHEAD of Pennsylvania. If the gentleman will yield, the thrust of the bill is to have private enterprise wherever possible, and Government corporations only as a last resort.

Mr. WHITE. Is there anything in the bill to prevent the production of solid synthetic fuels?

Mr. MOORHEAD of Pennsylvania. No; there is no prohibition.

Mr. WHITE. I thank the gentleman.

Mr. MOORHEAD of Pennsylvania. Mr. Chairman, I yield 1 minute to the gentleman from Indiana (Mr. Sharp).

Mr. SHARP. Mr. Chairman, I rise in support of the legislation. It is obvious that if we are to maintain our national defense and our world position, if we are to have a vibrant economy in which everybody has opportunities, then we must assure an adequate supply of energy for our future.

This bill will provide temporary, not permanent, subsidies to see to it that pioneer plants are built—pioneer plants that can provide us with more certain knowledge of the economic viability of more energy technologies, provide more certain knowledge of the environmental effects they will have and the requirements for protection of the public's health, and provide for a cadre of experienced technical and managerial personnel needed to rapidly expand this technology.

Mr. Chairman, is this bill alone enough for a national insurance policy for the future of energy supplies? We must provide for solar and renewable energy technology. We must develop a fast-track system for getting quick bureaucratic approvals of critical energy projects whether they be oil pipelines or pioneer synthetic fuel plants. And we must continue to encourage conservation in this country because it can be a very significant source of our future energy supply.

Mr. MOORHEAD of Pennsylvania. Mr. Chairman, I yield 2 minutes to the gentleman from Kansas (Mr. Glickman).

(Mr. Glickman asked and was given permission to revise and extend his remarks.)

Mr. GLICKMAN. Mr. Chairman, I rise in support of this bill. This is a very innovative bill and I applaud the gentleman from Pennsylvania.

I would like to ask the gentleman from Pennsylvania a couple questions.

What protections exist to insure we do not concentrate all of the effort foreseen by this legislation in the direction of just one of the numerous synthetic fuel technologies?

Mr. MOORHEAD of Pennsylvania. Mr. Chairman, this bill provides no one person/corporation can contract for more than 100,000 barrels capacity so that at a minimum we have 5 competing corporations or persons. Hopefully, through the use of direct loans and loan guarantees we will have more, getting down into the smaller range of business.

Mr. GLICKMAN. However, it is the intention not to put all the eggs in one basket in terms of just everything in coal liquefaction or some other related technology, but it will be across the board in terms of every type of synthetic technology?

Mr. MOORHEAD of Pennsylvania. Mr. Chairman, the gentleman is entirely correct.

Mr. GLICKMAN. My second issue: In the committee report there is a colloquy between Secretary O'Leary and the gentleman from Minnesota (Mr. Vento) regarding the fact that if we wanted to get 100,000 barrels of synthetic fuels on line tomorrow we would get it from gasohol.

I realize the committee has a goal of 500,000 barrels by 1984. I want the assurance that it is the intention of this Congress that we expedite the availability of synthetic fuels so the goal begins immediately and not 5 years from now. Does the gentleman agree with that statement?

Mr. MOORHEAD of Pennsylvania. Mr. Chairman, I agree wholeheartedly with the statement. The short-term thing is probably going to be in gasohol. Coal liquefaction is probably several years down the road.

Mr. GLICKMAN. It is the intention of this Congress that we begin immediately with the development of synthetic fuels and not wait for our 5-year goal of a half million barrels a day to spring out of nowhere?

Mr. MOORHEAD of Pennsylvania. Absolutely. There is a certain lag time in getting these big plants going.

Mr. GLICKMAN. I appreciate that.

I yield back the balance of my time.

Mr. MCKINNEY. Mr. Chairman, I yield 1 minute to the gentleman from Pennsylvania (Mr. Ritter).

(Mr. Ritter asked and was given permission to revise and extend his remarks.)

Mr. RITTER. Mr. Chairman, I rise in strong support of the synthetic fuels bill before us today and recently voted out by the Banking Committee on which I serve. This effort of using Government stimulus in a time of crisis to foster the emergence of a new industry is not new. We have seen it during the time of World War II, in the development of our aircraft industry. There is no question but that without the Government's role in producing the large propeller-driven, turbo-prop and jet aircraft that we would not have today the kind of predominance in the aircraft industry that we have all around the world. The same is true of the synthetic rubber industry when our access to natural rubber was cut off by the then enemy Japanese. The same can be said of peaceful uses of nuclear power. The original development in the nuclear power industry came as a result of efforts of the Atomic Energy Commission in preparing the first atomic weapons. In my own district, the technology of liquefying gases, once the sole domain of Government, is now 95 percent non-Government, private sector sales. Each of these industries today commands a major share of the world free enterprise economy.

We are seeing here today another positive step by a Government/American industry partnership in a time of crisis in this country. Each time, it was private industry which entered into the partnership to carry out the urgent task at hand. Given assurance of purchase which is what all those emerging industries had in common with the synthetic fuels industry of today's legislation, the private sector went ahead and did the job. I salute my good colleague on the Banking Committee, Mr. Moorhead and add that my only regret with this legislation is that it was not effected 10 years ago. Perhaps OPEC would not be so powerful today.

Mr. McKINNEY. Mr. Chairman, I yield my remaining 30 seconds to the gentleman from New York (Mr. Gilman).

(Mr. Gilman asked and was given permission to revise and extend his remarks.)

Mr. GILMAN. Mr. Chairman, I rise in support of H.R. 3930, the Defense Production Act Amendments of 1979—synthetic fuels—and commend the gentleman from Pennsylvania (Mr. Moorhead) and the gentleman from Connecticut (Mr. McKinney) for their extensive efforts in bringing this measure to the floor.

Mr. Chairman, as a result of the long gaslines and soaring prices, the irresistible power of a concept that is by no means new on the market, has ripened and begs to be harvested. This concept, of course, is the idea of a joint Government-private industry effort in the production of synthetic fuels. Synthetic gasoline can be produced from shale and tar sands, which are presently in abundance both at home and abroad. Another potential source is the use of alcohol in producing gasohol.

Price has been the main obstacle in the development of synthetic fuels. Prior to 1973, when consumers paid a mere 30 cents per gallon, there was little room for debate over such an expensive undertaking. Yet the first major increase in prices in 1974 set off more serious discussion about Government stimulus for an increase in production. Among others, I strongly favored the nurturing of that concept, 3 years ago when I strongly supported Vice President Nelson Rockefeller's proposals to develop synthetic oil. Nevertheless, our energy situation at that time apparently was not critical enough to encourage the institutionalization of those ideas.

However, the present severe energy crisis has revived the possibilities of implementing legislation stimulating production of synthetic fuels. Be it by chance, by mistake, or by willful manipulation, those oil exporting countries in the OPEC cartel can, at any moment's notice, cut back production considerably more than importing countries can cut back consumption. Therefore, the present crisis can and probably will be repeated over and over again. Let us make no mistake about that presupposition. The cost of energy has been skyrocketing. We do not need a bevy of energy economists to warn us that these two elements—production control and escalating costs—are pushing our economic stability, indeed, our very existence, closer and closer to the edge of the cliff.

OPEC countries are meeting at this hour in Geneva, ostensibly to slap on another, in a never ending sequel, of outrageous petroleum price hikes on the world at large. Before the year is out, the retail price of gasoline will probably rise to \$1.50 per gallon, with even more price hikes and shutoffs on the horizon.

Accordingly, I am urging support of this bill which I am cosponsoring, requiring the President to achieve production of 500,000 barrels per day of crude oil equivalent of synthetic fuels and synthetic feedstocks, and provide up to \$2 billion in guarantees for that production. Mr. Chairman, at this point in the Record, permit me to insert, in full, a New York Times article of June 6, 1979, which gives an exceptional report of our present predicament.

Mr. Chairman, whether or not the gas shortage is real or contrived is not the issue. Our paramount concern should be in resolving the

energy crisis, which is so critically impacting our Nation's economy. I strongly urge my colleagues to take one of the sorely required significant steps in helping our country become energy abundant and independent by adopting H.R. 3939.

The article follows:

PLAN TO COUNTER THE OIL CARTEL

(By Leonard Silk)

The Iranian revolution has again exposed the utter vulnerability of the United States to interruptions in oil supply. The rapid run-up in prices resulting from the subtraction of a couple of million barrels a day has still not run its course.

Saudi Arabia, the reluctant dragon, has now announced that it regretfully is raising the price of its Berri-field crude to \$17.87 a barrel as a mean of achieving "stability" in world oil prices before the June 26 meeting of the Organization of Petroleum Exporting Countries. And Iran itself has raised the price of its crude again.

With other OPEC countries charging from \$1 to \$5 more than Saudi Arabia, the oil cartel has already exploited the interruption of supply from Iran to achieve the 50 percent price increase that was predicted for this year. This will add about \$22 billion to the United States' oil import bill, which last year came to \$43 billion, and will cost the world as a whole an extra \$70 billion. Moreover, it is imposing severe pressures on both inflation and production, threatening the United States and world economy with another seige of stagflation.

The paramount issue here is how to deal with the threat of future interruptions in oil supply, whether in Iran (as may happen again, with Arabs in the Persian Gulf oil center fighting Government troops, and with the Soviet Union hoping to swing Iran into its orbit) or elsewhere in the troubled Middle East, North Africa or other parts of the third world.

A proposal by three leading members of Washington's foreign-policy community could provide a much greater degree of protection of the economy than is likely to result from the unaided market response to OPEC's concerted strategy and soaring prices.

Lloyd Cutler, a lawyer who has taken on various negotiating jobs for Secretary of State Cyrus R. Vance; Paul R. Ignatius, president of the Air Transport Association and a former Secretary of the Navy, and Eugene M. Zuckert, a lawyer and former Secretary of the Air Force, have drawn up a plan by which the United States could create a synthetic oil industry capable of producing 5 million barrels a day—about half the country's current import requirement—within the next five to 10 years from sources such as shale, tar sands, heavy oils, coal and farm crops.

In essence, the plan calls for the establishment of a Government corporation to do what the United States Government has done before in other national emergencies. During World War II, the Government solved critical shortages of natural rubber, aluminum and steel by building plants operated by private companies under leases or management contracts.

During the Korean War, another method was used. The Government entered into market-guarantee contracts with private industry to build new aluminum, copper and nickel capacity. The private companies, under these agreements, obtained private financing, received five-year tax amortization certificates, and gave the Government the option to buy, at specified or prevailing market prices, any part of the output that could not be sold to military or commercial users. The long-run cost of these projects to the Government was negligible, since the new capacity was privately financed and the Government later resold excess inventories to private buyers or to the original producers at higher prices than it originally paid.

The authors now propose a similar plan for energy. Through joint Government-industry efforts, the nation would create a synthetic oil industry in much the same way that it once created a synthetic rubber industry and doubled its nonferrous metal capacity.

The Government would subsidize the difference, if any, between the cost of synthetic fuel and current market prices, using the additional supplies to reduce imports or build up stockpiles. Either way the leverage of OPEC would be reduced, and this might lower world prices for the country's remaining needs.

Unquestionably, the initial costs would be high. Synthetic fuels are likely to cost between \$5 and \$10 a barrel more than imported crude for several years to come. Even if the world market price climbs enough to make the costs of synthetics competitive, private companies might be hesitant to take the risk of huge investments without some price guarantees, lest OPEC cut the price once new synthetic capacity has been installed. The planners estimate the one-time investment cost at roughly \$20 billion for each million barrels of synthetic capacity, or \$100 billion for the proposed program. But the cost to taxpayers would be much less. With OPEC now free to manipulate the world oil price and arrest supplies, the program could actually mean net savings as well as far less economic vulnerability.

A bill with provisions similar to the authors' plan has been introduced in Congress by Representative William S. Moorhead, Democrat of Pennsylvania. It calls for Government measures to achieve a national production goal of "at least 500,000 barrels per day of crude oil equivalent of synthetic fuels and synthetic chemical feedstocks" within five years. The Democratic majority leader, Representative James C. Wright Jr. of Texas, has said that he would favor a much larger production target for synthetic fuel. The House Banking Committee has approved the Moorhead bill by 39 to 1, but it is still waiting for White House support.

Those who believe the United States needs such a plan believe that it would give this country a positive means of regaining control of its own destiny and of striking back at the oil cartel.

Mr. GOLDWATER. Mr. Chairman, will the gentleman yield?

Mr. GILMAN. I yield to the gentleman from California.

Mr. GOLDWATER. Mr. Chairman, I rise in opposition to this bill.

Mr. Chairman, I have been getting my earful from the folks back home. The 1, 2, and 3-hour gas lines, the \$1-a-gallon price at the fuel pumps—"What," my constituents ask, "is Congress doing about it?"

Tonight on the evening news we will see the oil ministers at their meeting in Geneva before a battery of microphones and whirling cameras tell us that the price per barrel is going up even higher. And during the recess of Congress next week we will hear from the folks back home again, "What are you guys going to do about it?"

Well many of you see this bill, H.R. 3930, as the opportunity to tell the folks back home that Congress did something about it. I remember that grueling weekend last October when the House, rushing to adjourn, worked through the night on the President's energy bill so that we could tell the voters how proud we were of our national energy policy. Well, you see how proud we are now.

This bill, in my opinion, is, conceptually, a good idea. I have always advocated the development of alternative energy technologies. But in reality, the approach this legislation takes is a far cry from the best way to go about the business of developing synthetic fuels.

The bill is costly. Billions of taxpayer's dollars—no one can tell me exactly how many billions. But we are giving Jim Schlesinger who, as we all know, runs such a fine operation at DOE down the street—we are giving him a blank check to make grants and guarantee loans to anyone who can devise a new source of energy.

I agree, unless we take the initiative now we will be paying through our nose in the very near future. But this bill is not the way to take the initiative. Deregulation, decontrol, and restructuring the tax laws are the most efficient way to bring on line the alternative sources of energy which we so desperately need.

It is a shame that this measure cannot be amended far enough to accomplish these goals. But this legislation, in typical Federal Gov-

ernment style, calls for an infusion of tax dollars in an energy-exploration venture when incentives for the private sector would do the job much better and much quicker.

Mr. Chairman, I am not going home next week to tell my constituents that we are busy here in Washington trying to cut down on gas lines and reduce prices at the fuel pumps. This bill is a far cry from the type of legislation which would do the job in the best way, and I urge this body to send to the President a bill which will develop our energy potential much, much more efficiently.

Mr. MOORHEAD of Pennsylvania. Mr. Chairman, I yield the balance of the time remaining to the gentleman from Iowa (Mr. Smith.)

Mr. SMITH of Iowa. I thank the gentleman for yielding.

I want to point out it was 9 years ago right now, Committee on Small Business held extensive hearings on the impending energy crunch. The gentleman from Michigan is well aware of that and participated in the extensive hearings which were later used as the basis for both Senate and House proposals by other committees. At that time it was so obvious, even though we were importing only 6 million barrels per day, that we were going to be in trouble. However, almost no one would believe we should take action to substitute more domestic source fuels for imported petroleum products.

In the conclusion that we drew in October of 1970 we said in those reports, we must move to the point of at least producing low-Btu gas from coal that we must use more domestic energy sources. I visited gasification research projects under Federal Government sponsorship—even then the technology was available. I am surely glad to see that finally one of the committees of Congress has brought forth something that is really constructive—a plan which will reduce dependence on foreign oil without curtailing our employment opportunities and standard of living. I think this is a good step and I compliment the committee for reporting the bill and bringing it to the floor for consideration.

Mr. MOORHEAD of Pennsylvania. Mr. Chairman, I yield 15 seconds to the gentleman from Indiana (Mr. Fithian).

(Mr. Fithian asked and was given permission to revise and extend his remarks.)

Mr. FITHIAN. Mr. Chairman, I rise in support of H.R. 3930.

America's security must not be mortgaged to the foreign oil-producing nations. It is time to harness American ingenuity to lessen our dependence on foreign imports and create an American energy source—synthetic fuels.

Today, America is far too vulnerable to the demands of foreign oil-producing nations. Foreign nations threaten to cut off their oil exports to us unless we take certain actions. This is nothing less than blackmail. The United States has the resources, technology, and capital to render those threats meaningless by making our Defense Establishment energy independent.

The bill emphasizes this country's great forte—production. This legislation gives the President the authority to establish a synfuel industry in the United States that could reduce our need for oil imports.

Some synfuel technologies are well-established. Germany waged World War II on a synfuel produced from coal. South Africa has been producing a synthetic oil since 1955. Synthetic fuels derived from bio-

mass feedstocks—most notably alcohol—are now beginning to be produced and sold throughout the United States.

As a long-time supporter of synthetic fuels derived from biomass, I applaud the provisions of H.R. 3930 which permit biomass synfuel technologies to compete on an equal basis with coal gasification and liquefaction, shale, lignite, and other mineral liquefaction or gasification. I strongly urge the Departments of Energy, Commerce, Defense, and the TVA to give equal consideration to each technology in implementing the law. The intent of Congress is clear in this regard. Only if we have a clear idea of the comparative costs of each can we make intelligent decisions on future synfuel policy.

But at the same time, I firmly believe that we need to do more in the area of advanced research, development, and demonstration of near-term biomass synfuels technology. This effort is needed, in part, because Federal support for biomass synfuels R. & D. has, traditionally, lagged far behind support for competing technologies, and in part because of the tremendous potential offered by biomass synfuels.

It is, therefore, my intent to offer an amendment to the Department of Energy authorization bill which will help place biomass synfuels on a more equal footing with other synfuels technologies. Only if this additional support is offered can we expect a true test of the cost-effectiveness of competing technologies to emerge from the synfuel program contained in the bill now before us.

Of all DOE's renewable energy programs, biomass development has been one of the most neglected by DOE and other agencies. Yet, biomass' potential to meet U.S. and world energy needs puts it in a class by itself. According to the administration's recently released domestic policy review on solar energy, wood and other forms of biomass currently contribute between 1.8 and 2.4 quadrillion Btu's (quads) of the Nation's 78 quad energy budget. By 2000, biomass is projected to contribute more energy than any other renewable source: 3.1 quads in the \$25/bbl base case, 4.4 quads in the \$32/bbl base case, 5.5 quads in the intermediate case, and 7 quads in the high case.

Biomass' promise remains unfulfilled partly because biomass programs—particularly those centered on near-term applications—are underfunded and partly because program management has been inadequate. Most of the impediments to biomass development could, however, be eliminated and all could be alleviated. Making this resource live up to its awesome potential requires allocation of additional funds and the bringing together of a DOE staff with the skills and determination needed to redress neglect of this major energy source.

Under my amendment, the Federal Government would begin or add to programs in nine specific areas which would help us achieve the tremendous potential of biomass. These programs are derived from internal DOE and USDA budget requests—requests which, in most cases, were irresponsibly slashed by these agencies or OMB before seeing the light of day on Capitol Hill. My amendment will reinstate nine programs which were well conceived and carefully thought out by program managers at DOE and USDA.

1. POWER SYSTEMS PROGRAM, \$16.3 MILLION

The objective of this program is to develop, demonstrate, and commercialize near-term biomass applications using agricultural and for-

est residues. Intermediate- and small-scale gasification and direct combustion systems will be developed. Specifically, it is proposed that \$3.1 million support the design and implementation of safety and performance standards for residential wood stoves—expected to be used in 15 million residences by 1985—to support the development of advanced high-efficiency stoves, to support the implementation of the proposed tax credit; \$10.2 million will fund the development and demonstration of low-Btu gasification units in industrial applications.

This program was originally proposed as a part of DOE's Fossil Fuels Utilization Division. Program documents indicate that 4 quads could be produced annually by 1985, if the program were implemented. However, DOE, oblivious to the program's potential decided to cut it in fiscal year 1980.

2. GASOHOL TECHNOLOGY DEVELOPMENT, \$7 MILLION

DOE's fiscal year 1980 budget request projects a slight relative increase in funding for fermentation development above fiscal year 1979 levels. However, this increase does not adequately support the technology, considering its significant potential—it may provide up to 0.33 quads or 4 billion gallons of ethanol by 1985. The \$7 million increase should support further R. & D. for such near- to mid-term concepts as acid hydrolysis, enzymatic hydrolysis, as well as on-farm fermentation, an application which has been ignored by DOE.

3. COMMERCIALIZATION, \$8.4 MILLION

DOE has recently chosen wood combustion—and gasification—as being ready for commercialization and has designed a "resource manager" to oversee the Agency's wood commercialization program. However, almost no funds or staff have been allocated to this program. Moreover, DOE has taken a narrow view in choosing only wood combustion as a commercializable biomass technology. For these reasons, \$8.4 million is earmarked for a comprehensive commercialization activity supporting a host of near-term bioenergy applications including fermentation, gasification of forest and agriculture residues, and direct combustion in utility and industrial applications. The program will be complimentary to the technology development effort in the power systems program discussed above.

4. ON-FARM SYSTEMS, \$3.5 MILLION

An area which has received very limited support from DOE or USDA is the development and implementation of on-farm energy production systems. The \$3.5 million designated for this program is to fund design studies and demonstration projects which integrate food, feed, and fuel production. Particular attention will be given to comparing integrated farms with conventional farms as to net energy conserved, net profit, and soil and water conservation effectiveness.

5. ANAEROBIC DIGESTION, \$2.3 MILLION

DOE has historically promoted the development of large scale anaerobic digestion units having limited application. A \$2.3 million

amount is designated to support development work on onfarm digestors which can provide 0.3 quad in the near-term, which can have significant regional economic and environmental impacts.

6. ADVANCE PYROLYSIS R. & D., \$4 MILLION

An area sorely lacking in Federal research has been advanced rapid pyrolysis of biomass. The advanced pyrolysis R. & D. program would support applied research into fast throughput pyrolysis systems having high reaction rates and potentially high efficiencies. Research in this area has the promise of providing biomass conversion technologies capable of producing ethylene—which can be converted to ethanol—acetylene, and other petrochemical feedstocks which will displace fossil fuels.

7. BASIC BIOMASS RESEARCH, \$4.1 MILLION

Another area which has been overlooked by DOE has been in the area of basic and applied thermochemistry research. The sum of \$4.1 million is earmarked to support projects investigating the gas phase kinetics and catalysis of biomass. The results of this research could add greatly to the scientific understanding of bioconversion and result in many engineering advancements.

**8. FOREST RESOURCE UTILIZATION RESEARCH AND DEMONSTRATION,
\$17 MILLION**

The Federal Government, particularly DOE, has been preoccupied with developing biomass "energy plantations" which have speculative, if any, potential in the near term. As a consequence, little emphasis has been placed on using forestry wastes and logging residue resources, despite the fact that there is over nine quads of this waste material that can be readily converted to energy today with commercial technology.

The forest resource utilization research and demonstration program is to dovetail the commercialization program mentioned above by focusing on demonstrating and implementing a forest waste and residue supply infrastructure. The object of the program is to establish energy markets for residues resulting from conventional forest harvest operations. Particular attention will be given to integrating forest and energy programs and policies.

**9. AGRICULTURE RESOURCE UTILIZATION RESEARCH AND DEMONSTRATION,
\$13 MILLION**

DOE and USDA have done relatively little to research, much less implement any agriculture resource utilization programs. This program will develop and demonstrate a diverse range of feedstock cultivation and harvesting techniques. Its focus is to develop supply mechanisms capable of delivering feedstocks to an energy user(s) in an economically and environmentally acceptable fashion. Particular emphasis will be given to integrating agriculture and energy programs and policies.

While I strongly support the bill before us, the nine programs embodied in my proposed amendment to the DOE authorization bill

are far superior on a cost/benefit basis. I commend these programs to the careful review of my colleagues.

Mr. BENNETT. Mr. Chairman, I am in strong support of this legislation. I am cointroducer of it and I consider it to be perhaps the most important energy bill that we have had before us in several years. I voted for a similar bill that failed to pass several years ago and I regret that that other synthetic bill did not pass, because if it had we would be years ahead of where we are now in finding a practical solution to our overdependence on oil imports.

It is a shame that our great country is almost held hostage by the foreign oil-producing countries. Something must be done to end this dependence and I believe that this bill will do just that.

This bill is important to the national defense of our country and is important to the well-being of our citizens. I remember how in World War II Congress provided for the production of synthetic rubber when the Japanese fleet prevented us getting the natural rubber we needed for our war effort.

And similarly there was the production of aluminum in our country in that same time frame, something our country was required to do because of the war and which worked out well.

I have confidence that this legislation, too, will prove fruitful, and I suspect that it will be the most important response that Congress has yet made to the energy crisis. I hope it will pass overwhelmingly.

Mr. CONTE. Mr. Chairman, today the OPEC nations are meeting in Geneva and are almost certain to increase prices sharply. The figure most mentioned now is \$20 a barrel. Presently, the average selling price of OPEC oil is about \$18 a barrel, up 31 percent since the first of the year. The increase in oil prices to \$20 a barrel would raise the gasoline prices about 5 cents a gallon in the United States.

It should be obvious now to this body that we must take positive steps to break the OPEC stranglehold. This Nation is the beneficiary of almost 48 percent of the total coal on this planet. The energy value of our recoverable coal deposits exceeds that of the world's total proven petroleum reserves.

In addition, we have two-thirds of all the world's oil shale deposits. There is more oil trapped in the mountains of Colorado, Wyoming, and Utah than under the deserts of Saudi Arabia. Two trillion barrels of oil should be recoverable from shale deposits in this country. Even with current technology, we could produce 600 billion barrels of oil from shale at costs that are rapidly becoming competitive.

Mr. Chairman, we must unite the financial resources of the Federal Government with the know-how and ingenuity of the private sector to achieve an objective of overriding national importance.

No longer can we afford to wait for the private sector to assume this tremendous burden alone. Rather, we must extend to it the necessary incentives to take the inherent risks of developing this alternative source of energy. Synthetic fuels is a necessity for this Nation's economic survival. This bill is our insurance policy for future growth.

Mr. HARRIS. Mr. Chairman, the deepening uncertainty over the Nation's fuel supply threatens to undermine our economy and security. A failure to harness our available resources, technology, and national will to meet this challenge could derail the progress toward economic

and personal freedom for all Americans. It is clear that this contest is as great as other national tests of strength and spirit—creating and preserving a Union of free States, settling the frontier, and battling worldwide tyranny and depression in the 1930's and 1940's. History would not judge a failure lightly.

There are those who say that Government has moved slowly on energy because there has been no clear national consensus on what to do. There are those who would blame the divergence of political power in the country—the inability of the body of Congress to lead, and the collapse of the “imperial Presidency.” Still others claim America has grown too soft to meet this challenge with resolve. None of these excuses is acceptable.

SYNTHETIC FUELS: TECHNOLOGY TO MEET THE DEMAND

The Defense Production Act amendment, which I have cosponsored, would enable the United States to strike back at the OPEC cartel and cut our dependence on foreign oil. The bill, H.R. 3930, would provide for the startup, through a joint Government industry effort, of the production of synthetic fuels and synthetic chemical feedstocks from such sources as shale, tar sands, heavy-oils, coal, farm crops, and even solid waste. This legislation would establish a national production of 500,000 barrels per day, the current daily level of oil derived products used for national defense purposes. The achievement of this production goal would not only meet our current defense needs, but it would begin to build major capacity to fill our future energy requirements.

The technology of synthetic fuels is well established—Germany waged World War II on synthetic fuel produced from coal; South Africa has been producing synthetic oil since 1955; and gasohol is now being sold throughout the United States. Clearly, we have the technology and the resources to develop a synthetic fuel industry. We need only an assured market to get the industry underway. This legislation would give private industry the incentives to produce synthetic fuels through price, loan, and purchase guarantees.

I believe the public-private cooperation mandated in this legislation is, without question, the key ingredient to any such successful effort. The initial cost of synthetic fuels and chemical feedstocks poses a prohibitive barrier to industry and investors, especially in light of the uncertainty of future energy markets. The intention of this bill is to create a stable and favorable synthetic fuel investment climate to achieve the production goal of 500,000 barrels per day within 5 years.

OPEC INCREASES: AN ECONOMIC PEARL HARBOR

In times past, Americans would never have surrendered to the oil chiefs of OPEC and those who enforce their orders—the international oil companies. Oil and gas are limited resources. The mind and spirit of this Nation are not.

We ought to consider today's OPEC meeting in Geneva to be an “economic Pearl Harbor,” and respond to it with the same determination we have shown in the Nation's past.

Let us give the same priority to developing new fuel that we gave to developing synthetic rubber when our supplies of natural rubber

were cut off by the Japanese in World War II. Overnight, America became a leading producer of rubber—synthetic rubber—in the world. And we could not be held hostage by any foreign government or corporation that controlled the rubber tree plantation.

We can take the same kind of forthright action with regard to oil: synthesizing petroleum from coal, tar sands, shale, and turning urban wastes or farm surpluses into gasohol.

Today's bill must be combined with a continued commitment to energy conservation including a restructuring of utility rates in a way which rewards, rather than penalizes, conservation. We must step up research on solar and geothermal energy, and put this technology into practice in a way that creates jobs. We ought to be ending the monopoly the oil companies have in conducting this Nation's trade policy with oil nations, requiring sealed bids from those who wish to sell to us and requiring competition for the right of entry into our market. These are more sensible ways of spending our resources and energy, than continuing to hand money to the Barbary pirates of OPEC and the international oil companies.

Mr. ANNUNZIO. Mr. Chairman, in Geneva at this very minute a group of countries who in any normal sense are not world powers are meeting to decide how much the American people are going to pay for gasoline and heating oil in the months and years ahead. Without any disrespect to the OPEC countries, I find this downright humiliating, and I think we all do. There are some things in this world we can do nothing about, but this is not one of those cases. We cannot break our dependence on OPEC oil immediately, but we can start immediately on the road toward independence. That road is synthetic fuel.

The technology is there. The raw materials—coal, shale, farm, and forestry products—are there. The finance, in our huge capital markets, is there. What has been lacking is the will to move ahead.

In part our delay has been understandable, because the probable cost of synthetic fuels was well above even the high OPEC price that was established in the winter of 1973-74 and raised a bit in the next 4 years. But that excuse no longer holds. The increases in OPEC prices of the past 6 months, triggered in part by the events in Iran, have changed the economics of synfuels dramatically. The price premium for synfuels, while it cannot be estimated precisely, is now modest or even nonexistent.

In my view, we should have moved ahead with synfuels on national security grounds long ago, even if they were more costly. But we did not. Now there is no longer any valid reason for delay. The bill before us will get us started. It gives the President the flexible tools he needs and it gives industry the necessary incentives and price insurance to make the investments required.

It is time to stop quarreling about details and act on a straightforward issue of national security and economic independence. A large synthetic fuels industry in the United States cannot be built rapidly, but is entirely feasible. It is the way to avoid in the future hanging over the news ticker to see what the latest decision by OPEC on our energy prices is going to be.

Mr. LAFALCE. Mr. Chairman, I rise in strong support of H.R. 3930, the Defense Production Act Amendments of 1979.

The skyrocketing cost of gasoline and the long lines at service stations are constant reminders of our deeprooted energy crisis, and that crisis is not going to disappear. Conditions are expected to worsen in the 1980's, as finite supplies of oil are drawn down. While there is little agreement about the extent worldwide oil reserves, there can be no disagreement about the fact that they are finite in nature and essentially nonrenewable.

The present inconveniences associated with the crunch in gasoline supplies could easily be transformed into actual hardships for many Americans who have to depend on the automobile for their real transportation needs. Conservation is a vital necessity, but conservation has its limits in a society which revolves around the automobile. Increased funding for mass transit projects is also a vital necessity, but it will take years and perhaps decades to rebuild our long neglected mass transit systems. People also frequently forget that intracity buses, intercity buses and Amtrak all burn oil; and increased usage of all three in the coming years will mean greater demand for oil by mass transit systems, by companies, and railroads.

Another important aspect of the energy crisis is the geographic location of our oil supplies. Approximately 50 percent of our oil comes from foreign countries, primarily from the OPEC oil cartel which reportedly is considering yet another drastic increase of the price of oil. This country is dangerously dependent for its supplies of oil on nations which are sometimes hostile to the United States and often politically unstable.

Numerous witnesses, including spokesmen for the Departments of Defense, Energy, and Treasury, testified before the Banking Subcommittee on Economic Stabilization that this country's national security interests are endangered by the worldwide gasoline crunch and our dependence on foreign supplies. The concept of being dependent on Colonel Gaddafi and the Ayatollah Khomeini is not only frightening, but also morally repugnant. The Department of Defense has even registered some concern about its ability to obtain sufficient oil supplies to enable it to maintain its training programs at the desired levels for maximum military effectiveness.

The obvious conclusion is to reduce our reliance on oil in general and foreign oil in particular without destroying our highly industrialized economy. An accelerated development of synthetic fuels, made from coal, oil shale, peat, tar sands, grain stalks, and garbage, hold the potential for avoiding a disastrous energy crunch in the coming decades.

Mr. Chairman, as President Carter once said, we are in the "moral equivalent of war"; and the last time we were faced with a comparable situation was World War II. In early 1942, this country was suddenly cut off from 90 percent of its natural rubber sources and had to quickly shift to synthetic rubber, in order to insure our national security. Government-owned and industry-run plants successfully coped with that crisis, and by 1945, 87 percent of the rubber consumed in the United States was synthetic. Shortages in the supply of aluminum and steel were also successfully overcome in the same manner. If this approach helped us defeat our enemies in World War II, it quite possibly could be of immeasurable aid in breaking OPEC's stranglehold

on the United States. To achieve this goal, we need no less an effort than as if we were engaged in war.

H.R. 3930 contains a provision which would authorize the construction of Government corporation plants leased to and operated by private industry, along the pattern used in World War II for the production of synthetic rubber. This is decidedly not a visionary scheme; on the contrary, it is a tried and true method for coping with shortages.

H.R. 3930 also directs the President to achieve a national production goal of 500,000 barrels of synthetic fuel by 1985. This would insure that our military needs for fuel would be met in the mid-1980's and would encourage the creation of a commercially viable synthetic fuels industry which could then also help meet civilian needs for fuel. Without this minimum level of production, there would be scant encouragement for the development of a synthetic fuels industry which will require huge initial investments.

Mr. Chairman, there have been a number of complaints about the costs of this bill, but I believe that those complaints are unfortunately shortsighted. The price of imported oil is constantly rising and adding to our problems with our balance trade, and the cost of that imported oil to the average consumer is staggering. This bill will help reverse that trend and prevent the transfer of billions of dollars to our "friends" in the OPEC oil cartel.

There will be efforts made to essentially cut this bill, and I want to urge all of my colleagues to soundly reject those attempts. We can no longer afford to endlessly debate proposed solutions to the energy crisis, because those lines at service stations are just going to become longer and longer. I am pleased to be an original cosponsor of H.R. 3930, and I am pleased that over 120 of my colleagues have also agreed to cosponsor this bill which is a new and innovative response to the energy crisis.

H.R. 3930 gives Congress the opportunity to do something to help solve the energy crisis and the gasoline crunch, before conditions become catastrophic. I urge all of my colleagues to support this imaginative and innovative congressional initiative.

Mr. BIAGGI. Mr. Chairman, for the millions of Americans sitting in gasoline lines—for the independent truckers whose wheels have stopped, because their supply of diesel fuel has dried up—for the millions of Americans who face the prospect of a long cold winter with dwindling supplies of home heating oil—the moral equivalent of war has come to pass. This Nation, for whatever reason, is in the midst of a serious energy problem whose origins are not as important as the solution. Therefore, with a sense of fighting this war with sufficient strength, I rise in full support of H.R. 3930, the Synthetic Fuel Development/Defense Production Act amendments.

This legislation has profound implications on both the short and long run. In the short term, this bill will provide for the development of a domestic synthetic fuels industry capable of meeting at least the needs of the Defense Department. However, on the longer term, this legislation will finally give this Nation the semblance of an energy policy which recognizes that we do not have to look to foreign sources for our energy. It will permit the production of our own domestic

energy sources. H.R. 3930 is a catalyst which could transform Project Independence from a rhetorical pipedream to a viable objective.

Let us look at the record. Since the establishment of an energy independence goal for the United States, our Nation's dependence on foreign oil has increased rather than decreased.

H.R. 3930 would go beyond mere expressions of support for an energy independent America. This important measure would help to stimulate the creation of an abundant domestic energy source—synthetic fuels.

Synthetic fuels, as defined under this bill, include fuels produced from coal gasification, coal liquefaction, shale, lignite, peat, solid waste, and other mineral gasification, liquefaction, or other conversion.

I am especially enthusiastic that this legislation would create a major new market for coal, our Nation's most abundant energy source. I have long maintained the importance of coal to our Nation's efforts to become energy independent. The development of a synthetic fuels industry, as provided for in this bill, would certainly utilize this vital domestic resource to the maximum.

The major provisions of the bill provide for the development of a domestic synthetic fuels (synfuels) production goal of 500,000 barrels a day (b/d) of crude oil equivalent by 1984; an amount equal to the total petroleum consumption of the Defense Department. This would be accomplished by establishing incentives for industry to build commercial size synfuel plants, and by granting the President broad standby authority to involve the Federal Government in actual synfuel production if private industry is not able to meet the production goal.

The cost of this bill to the American taxpayer will be little or nothing. Under this legislation, private industry would build these expensive synfuel plants and pay for them, with the assurance that they will receive a minimum price guarantee for the synfuel they have been contracted to produce for the Government. Further, the House Banking Committee, which reported this bill to the full House, estimates that savings realized from synfuel purchases instead of equivalent imported oil purchases to be \$1.8 billion over 5 years.

At a time when our Nation is facing a serious unemployment and inflation problem, I am especially enthusiastic about the positive effect this new synfuel industry would have on our economy. Each synfuel plant would provide about 20,000 jobs onsite and in various support activities. About 10 or more plants are expected to be needed to achieve the established synfuel production goals.

Mr. Chairman, the American public is crying for leadership on the energy front. There is cynicism abounding about who is to blame for the current problems; there is apprehension about future problems; and above all, there is a long overdue recognition that this Nation lacks an energy policy. H.R. 3930 in and of itself does not constitute an energy policy, but it does provide one of the strongest foundations for a policy ever enacted by the Congress. This legislation is good for America, which has taken a prestige beating internationally, because of our failure to handle the energy problem. H.R. 3930 deserves our prompt support today.

Mr. BROWN of California. Mr. Chairman, I intend to support this legislation, because I believe it is both wise and inevitable that this

country have workable commercial scale synthetic fuel production facilities. I must confess, however, that I am highly skeptical of the claims of some supporters that synthetic fuels can be produced at a lower cost than other fuels, or that a U.S. synthetic fuel industry will "break the back of OPEC." The demand for energy is too great in the world, and in the United States in particular, for any modest increases in supply, whether it is 500,000 barrels of oil a day, or 5 million barrels of oil a day, to abate the trend for even higher energy costs. Successful conservation will go much further than synthetic fuels in this regard.

If we are lucky, and luck may very well be the operative factor here, we will prove that we can produce enough synthetic fuels to keep our national defense and the vital parts of our economy operating in the event of a major oil supply discontinuity. We will probably find that these synthetic fuel technologies are too expensive and have too many adverse side-effects to be put into widespread use, except under the most favorable circumstances. But without legislation such as H.R. 3930, we will find out none of these things for sure, and the debate about domestic alternatives will continue to be dominated by wild assertions about the vast quantities of oil and gas we have locked up in the mountains of the West.

Mr. Chairman, over the past 5 years I have participated in many hearings, debates, and markup sessions on the subject of synthetic fuels. In 1975, the Senate added a \$6 billion loan guarantee program for synthetic fuel production to the fiscal year 1976 Energy Research and Development Administration's authorization bill with much less debate and consideration than the House Banking Committee and the full House has given H.R. 3930 today. As a conferee on the ERDA bill in 1975, I insisted on a thorough and careful review of the legislation before the House conferees voted on it. The chairman of the Science and Technology Committee at that time, "Tiger" Teague, agreed to hold hearings and an informal markup session on the Senate proposal, before actually negotiating with the Senate, in order to give the House Members a full opportunity to carefully consider the proposed legislation. While it was not easy, I and other Members were able to amend that legislation in conference to produce a final product which at that time I said was "as good or better than any legislation passed by the Congress this year."

Mr. Chairman, I hate to say it, but that legislation in 1975 was better than the bill before us in many regards. Unfortunately, the House rejected the conference report, and the opportunity for the United States to slowly and carefully build up a commercial demonstration scale synthetic fuel industry. If we had taken this step in 1975, today we would have answers, rather than questions about the economic, environmental, and technological feasibility of this legislation.

H.R. 3930, as presently drafted, has the potential for vast abuse by the executive branch. While I do not doubt the present Executive's good intentions, I hate to see legislation enacted which relies upon "good intentions" as a safeguard. For this reason, I will be supporting some of the amendments being offered here today to more carefully circumscribe the actions of the Executive, especially in regard to existing environment, health, and safety laws. In general, however, I believe H.R. 3930 is a good approach to this problem of developing a

fledgling industry which has serious national security implications. I commend the Banking Committee, and particularly my good friend, Bill Moorhead, for his timely initiative.

Mr. WIRTH. Mr. Chairman, I rise in support of H.R. 3930, the Defense Production Act Amendments of 1979, and also on behalf of Congressman Robert Giaimo, chairman of the Budget Committee, who cannot be here at this time. This bill will provide the United States with a capability to produce synthetic fuels, a capability which we sorely need. As OPEC meets again today in Geneva, we are again reminded of the seriousness of our energy problems. This synthetic fuels program may yet turn out to be expensive; however, the cost of doing nothing may be as expensive, if not more so.

On behalf of Chairman Giaimo and the Budget Committee, I want to note that the bill we will vote on today is simply an authorization bill. It does not present a budget act problem. Further, before the authorities in it could be used, a future appropriations bill, making those authorities effective, would have to be enacted. In this context, it seems to me to be proper to authorize a bill with sufficient leeway in it for the appropriations process to work its will.

For these reasons, I strongly support enactment of this bill.

Mr. FOUNTAIN. Mr. Chairman, I am pleased to rise in support of H.R. 3930, the Defense Production Act Amendments of 1979, and to urge its adoption. I have joined my friend and colleague from Pennsylvania (Mr. Moorhead) in sponsoring an identical bill, H.R. 4568.

This legislation is appropriately oriented toward our Government's responses to disruptive actions by foreign nations which could reduce or terminate the availability of certain critical and strategic materials, including petroleum. We desperately need to reduce our dependence on foreign oil and to increase our domestic supplies and production of energy in order to maintain adequate national defense preparedness. This is essential to our national security.

News reports over the last several days indicate that additional steep increases in the price of petroleum, imposed unilaterally by the OPEC nations, are imminent. Passage of this bill would send a clear message to OPEC that we fully intend to use our domestic technology to reduce oil imports. In 1978 alone, we paid out \$42 billion for petroleum imports. Think of the favorable effects on our economy which would result from our keeping a significant portion of that amount here at home.

Speeding the development of synthetic fuels, not only for defense purposes but also for civilian uses, will insure more adequate domestic energy supplies into the future. An efficient synthetic fuels industry can counter the adverse effects of the oil cartel on domestic and world economies. It can assist the United States in paving a road to energy independence through the development of synthetic gasoline and other essential fuels. The need is compelling, as we do not have a single commercial-sized synthetic fuels plant in actual operation today. A worsening gasoline situation dictates that we take forceful action in this area.

Mr. Chairman, we have the technology available to make oil and gas from coal. Energy technology in this country has traditionally been a joint venture by Government and the private sector. This bill would authorize financial incentives and promote a national demon-

stration of the promise of coal technology as a measured response to our petroleum shortage.

In spite of my support for this legislation, there is one concern which I would like to express in the hope that the administration will fully police the awarding of contracts for synthetic fuels development. This bill delegates broad discretionary authority to the executive branch in making and guaranteeing loans within stated limits. Government contracts will be awarded following competitive bidding procedures. Consequently, there is a good deal of potential for fraud, abuse, and other illegalities. My hope is that an Inspector General-type procedure will be used to monitor in an aggressive manner the synthetic fuels program and to investigate any substantive allegations of impropriety in the awarding or performance of these contracts.

Mr. Chairman, this legislation deserves our support in order for us to begin arriving at a necessary national consensus on energy matters. Our Nation must be assured of adequate energy supplies in both the short run and the long run. Otherwise, our national security will be seriously handicapped.

Mr. APPLEGATE. Mr. Chairman, I rise in support of the bill, H.R. 3930, as authored by my good friend and colleague, Bill Moorhead. It is an honor for me to align myself with him and others in the House of Representatives in which I believe to be the first real attempt on the part of this Congress to ease our current energy problems.

One need only briefly review the energy situation in America today to understand why this bill is needed. The constant threat of an oil embargo against this Nation; the ever escalating price of the crude oil that we do receive; the constantly increasing trade deficit that is directly attributed to the purchasing of foreign oil; and that which is most evident to us today, the long lines of automobiles at the gas stations waiting for gasoline, all indicate one thing—that we must act to lessen our dependency on foreign oil and we must act now. H.R. 3930 will provide the necessary vehicles to achieve this.

As we know, this bill, if enacted into law, will amend the Defense Production Act to authorize the President to offer guaranteed price controls or loan guarantees as needed to stimulate production of synthetic fuels by private industry. It is the goal of the bill we now debate to produce 500,000 barrels of synthetic fuel per day by 1985. This goal, which I hope would be exceeded, can only be achieved if we act responsibly here today.

Many of those individuals who oppose this bill do so because they believe the Federal Government should not be in the energy production business. This may or may not be true, but H.R. 3930 does not put us in that position. Government/industry efforts are not new. The nation would create a synthetic oil industry, again through price supports and loan guarantees, much in the same way that it once created a synthetic rubber industry and doubled its nonferrous metal capacity.

The time has come when we cannot afford to idly sit back in the hopes of our energy problems being eliminated by a great new discovery or by private industry alone. We, the Government, must help. Coal is in such abundance in this nation and in the world as a whole that we would be fools not to take advantage of it. We must move in

the direction of formulating a national energy policy that emphasizes and relies primarily upon coal as the fuel of this Nation.

On June 4 of this year, Secretary of Energy, James Schlesinger, presented his recommendation on the ways to increase the production and use of coal to the President as was requested of the Secretary on April 5, 1979. While the report was very detailed in problems, methods and objectives, I would like to quote one particular sentence of the report which, to me, sums up the coal situation in this Nation. That sentence is:

If this nation is to cope effectively with economic and national security problems during the rest of this century, the obstacles to increase coal production and use must be removed by an effective national commitment to coal.

I commend the Secretary for his keen observations in this area and hope that this Congress will now do its part and approve a bill that will help increase the use of coal and at the same time lessen our dependency on foreign oil. H.R. 3930 can achieve this and I hope that you will join me in supporting and voting in favor of it.

Mr. MAZZOLI. Mr. Chairman, I strongly support H.R. 3930, the Defense Production Act of 1979, a bill to encourage the production of synthetic fuels in America.

I realize that many thoughtful people oppose this legislation either because they fear damage to our environment or because they believe that this bill would cause an unnecessary Government intervention in the private sector.

These are legitimate concerns. And, as we pursue this legislation, we should not lose sight of them. However, I believe that we must go ahead with a vigorous synthetic fuels program despite these concerns.

The tremendous costs of the program—and the waste and overruns which are inevitable—are acceptable nonetheless, because we will become less energy-dependent as a result of the program. And, at worst, our money will stay at home.

A synthetic fuels production capacity will give the U.S. leverage against OPEC's arbitrary price increases. Even a cut of 20 percent in American imports will make it difficult for the oil cartel to administer the price-increase lash to this Nation and to many others around the globe.

Furthermore, action on a synfuel program will raise our national spirit and end our defeatist attitude.

I am convinced a lot of our problems as a nation are psychological stemming from our dependence on decisions made in foreign forums over which we have little or no control. With our own fuel we can make our own decisions.

I would like to insert in the Record, the following editorial from the New York Times of June 24, 1979, which develops these themes brilliantly:

THE MORAL EQUIVALENT OF THE GAS LINE

For one poignant moment last week, between gaudy journeys to foreign summits, Jimmy Carter had a chance to experience the humiliation that the OPEC cartel daily inflicts on his country. For a President, it should have been the moral equivalent of the gas line.

The President's men were telling him about a lawsuit to be heard in Los Angeles tomorrow. Brought by the International Association of Machinists, it charges price-fixing by the Organization of Petroleum Exporting Countries.

which meets in Geneva on Tuesday to fix some more. Legally, the case against OPEC looks substantial. But economically, a court victory over OPEC would be disastrous. To avoid fines and damages, the oil nations could wreck American banks and ruin the dollar abroad by withdrawing billions from their short-term accounts. They could also stop investing in the United States or further hold down oil production. They have not even bothered to answer the charge in court.

So while the lines were growing at pumps charging more than \$1 a gallon, the President was asked what to do. Did he care to appear in court in the politically absurd role of OPEC's defender or trust the California judge to grasp the stakes and find a pretext for dismissing the suit? No one at the White House could even afford to worry about the legal merits. Probably it was decided to explain the national interest to the judge by some unofficial means.

These denigrations of our institutions and blows to the spirit define the true dimensions of the energy crisis. They may appear trivial beside the huge tangible costs of dependence on OPEC oil. But there is no safe distinction between the loss of material goods and social values. As we should be learning also from the animal behavior of truckers and others at gas stations, a loss of time and money turns swiftly into a loss of civility. Unless a society is brilliantly summoned to unite in the common defense, a profound threat to its standard of living also threatens its standards of life. We, not OPEC, are on trial.

In one sense, the nation has wasted the six years since OPEC tied its noose. Experts debated whether the oil crisis was one of price or supply, when it was both. Politicians debated whether the remedy was more conservation or more production, and stimulated neither. By and large, Americans heatedly blamed each other for a crisis they denied existed.

In another sense, the six years between gas lines were not entirely lost. They exposed the staggering dimensions of the problem and cost of every remedy. Even in losing ground to OPEC, Americans have been ranking their values and approaching a consensus for a determined response. They palpably want equitable sharing of the energy in hand and a massive effort to produce more of their own.

There's no point, then, in asking them to make do with less while awaiting the blessings of the sun in the year 2000, the full benefits of conservation or a car that will burn the garbage. But there's no excuse, either, for letting OPEC run the planet for a generation. The American economy will not withstand such pressure. The alliance of industrial democracies might not survive. The poorest nations will surely be crushed.

Politics is policy and opportunism—doing what the experts think will work when the people will allow it. President Carter has lucked into such a moment and if there's a leader there, he will now direct the nation to an energy moonshot.

The United States can afford to finance a multibillion-dollar energy corporation to create new but known technology to make gas and oil from vast and known resources of coal and shale. By producing the equivalent of one to two million barrels of oil a day by the mid-1980's, while also saving and producing more conventional energy, the nation could reduce its imports by perhaps 20 percent. More important, it would gain the power to keep OPEC from endlessly raising the price of the other 80 percent. Huge sums might be wasted in experiment, but new industries would emerge to be sold to private interests for long-term commercial energy production. And even the wasted sums would be spent at home, not sent abroad.

Most important, the ugly defeatism would be contained. Americans would gain a sense of uplift and a stimulus for their productive talents. On the way, they would more generously adapt to shortage, even rationing, and regain the political confidence that comes with purpose. And in confronting their predicament, their President would not have to cringe.

Mr. HAGEDORN. Mr. Chairman, since the original Arab oil boycott of 1973-74, it should have been evident to the American people and the majority of their elected officials in the Congress that concentrated and bold steps had to be taken to reduce our dependency on imported petroleum.

However, since that time, we have increased the amount of petroleum we import and today we are seeing massive disruptions in our economy

and lifestyle, because of just a small decrease in the amount being received from abroad and refined in this country.

As frustrating and disrupting as the present situation is, we must learn from it and act now as we should have acted after the first petroleum supply shortage of several years ago. The American public is looking to us for answers. Although it will take some time for adequate supplies of synthetic fuels to become available, we must act today to insure these supplies in the future. Members of the 93d, 94th, and 95th Congresses did not band together to gain the necessary majority to pass such a bill as we are considering today so we must not allow this opportunity to pass by. The vacillation of the past must not continue.

The administration has accused the Congress of being unable and unwilling to address the problem of energy. Our support of this bill today will demonstrate that we are willing to commit the resources of the Federal Government combined with the abilities of American industry and individuals in order to furnish energy supplies vitally important to the welfare of our Nation. If we have inadequate supplies of energy for our military needs, we will pay a much greater price than higher prices and long gasoline lines. We cannot afford to suffer the consequences of a military defense capability crippled from lack of adequate fuel to operate weapons and to transport troops. If we do not develop synthetic fuel supplies for the lowest possible price in the near future, someday we will be at the mercy of a foreign government who will use energy shortages to bring us to our knees and use our weakened situation to their military advantage.

As many of my colleagues know, I have long supported Government involvement in the production and use of an alternative fuel source—gasohol, a mixture of 90 percent gasoline and 10 percent alcohol. One of the principal ways of doing this would be through Federal loan guarantees. This bill allows the Government to go even further than the conversion of grain into fuel alcohol as the synthetic fuels we are considering today will include coal gasification, coal liquification, shale, lignite, peat, solid waste and other mineral gasification, liquifaction, and the conversion of any organic material into fuel.

One of the principal duties of the Federal Government is to insure the protection of this Nation by the maintenance of a strong defense posture. Inadequate energy supplies would certainly hamper any military operations which may become necessary for the protection of our Nation. It is appropriate that we take these steps today to insure that at least 500,000 barrels per day equivalent of synthetic fuels and synthetic chemical feedstocks could be produced by 1984. This is just 5 years away—the same amount of time since the Arab boycott. In the past 5 years we have done little to progress in this area so we dare not wait any longer to take the initiative that should have been taken in the past. It is regrettable that it takes the present fuel crisis to force the majority of the Congress into action, but at least this action is not being put off any longer.

Our action today could be the beginning of a concerted effort by the Congress to bring some type of relief from the economic straitjacket we are finding ourselves in. We cannot solve these problems without more money and effort of all kinds. The technology is available but the high cost of synthetic fuels has caused a lack of interest by the Con-

gress and industry. Now that world petroleum prices are skyrocketing, the prices that we will be forced to pay for imported petroleum are fast approaching what it will cost for these fuels. As more is produced the price per barrel will also be reduced. The price and supply picture will change as more and more attention is paid—by the Congress and American industry.

We should not delude ourselves or the public into thinking that the eventual mass development of synthetic fuels on a grand and economical scale will be the U.S. answer to OPEC in the next few years. It will take years before the American dependence is such that we are free of their price and supply control, but the strides we are making for defense purposes will—at some time in the future—help to break this crippling dependence.

The CHAIRMAN. All time has expired.

Mr. DINGELL. Mr. Chairman, I make the point of order that a quorum is not present.

The CHAIRMAN. Evidently a quorum is not present.

The Chair announces that pursuant to clause 2, rule XXIII, he will vacate proceedings under the call when a quorum of the Committee appears.

Members will record their presence by electronic device.

The call was taken by electronic device.

QUORUM CALL VACATED

The CHAIRMAN. One hundred Members have appeared. A quorum of the Committee of the Whole is present. Pursuant to rule XXIII, clause 2, further proceedings under the call shall be considered as vacated.

The Committee will resume its business.

The Clerk will read.

The Clerk read as follows:

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled,

SHORT TITLE

SECTION 1. This Act may be cited as the "Defense Production Act Amendments of 1979."

Mr. McKINNEY (during the reading). Mr. Chairman, I asked unanimous consent that the bill be considered as read, printed in the Record, and open to amendment at any point.

The CHAIRMAN. Is there objection to the request of the gentleman from Connecticut?

Mr. DINGELL. Mr. Chairman, I object.

The CHAIRMAN. Objection is heard.

The Clerk will read.

The Clerk concluded the reading of section 1.

Mr. BROOKS. Mr. Chairman, I move to strike the last word.

Mr. Chairman, I want to address a couple of inquiries to my distinguished friend, the chairman of the subcommittee that brought this legislation out, the gentleman from Pennsylvania (Mr. Moorhead).

I want to say, I will point out to the gentleman from Pennsylvania (Mr. Moorhead), that I am in general support of the objectives of this

legislation and expect to vote for the bill. However, I do have questions about several provisions which I would like to address to the gentleman from Pennsylvania in hopes that he can clarify some concerns I have. The first is on competitive bidding.

First. The bill gives the President the authority to purchase and resell synthetic fuels "without regard to the limitations of existing law." That is rather broad language, and I am always cautious about sweeping exemptions from existing law. It is my understanding that this is intended to be an exemption only from procurement laws, but even then I have some concern about it. The language on page 6 of the bill requiring sealed competitive bidding appears to restore one major requirement of government procurement law. However, I would ask the gentleman if it is the committee's intent that, in addition to competitive bidding, the Government follow other requirements of government procurement law to the maximum extent practicable?

Mr. MOORHEAD of Pennsylvania. Mr. Chairman, if the gentleman will yield, the gentleman is correct that we would expect Government purchasing authorities to follow to the maximum extent practicable the usual requirements of Government procurement laws.

For example, I would expect that such things as small business, minority business set-asides, labor surplus areas, and so forth would be included. We do not amend those laws.

Mr. BROOKS. Mr. Chairman, I note that the requirement on page 6 relating to sealed competitive bids deals only with "purchases or commitments to purchases" and makes no mention of resales. Is it the committee's intention that such resales are to be conducted pursuant to generally applicable Government disposal policies?

Mr. MOORHEAD of Pennsylvania. Mr. Chairman, if the gentleman will yield, as a member and as chairman of the subcommittee, I would say to the gentleman that that is our intention.

Mr. BROOKS. Although the legislation requires the use of sealed competitive bidding, there is a provision that authorizes the President to negotiate contracts when no bids are submitted or when the President determines that none of the submitted bids are acceptable. Section 304 of the Federal Property Act contains a number of requirements for negotiated contracts, including a prohibition against cost-plus-a-percentage-of-cost contracts and the inclusion in all negotiated contracts of a provision authorizing the General Accounting Office to audit such contracts. Is it the committee's intention that contracts negotiated pursuant to the provisions of this act are to be subject to audit by the General Accounting Office and other provisions normally required in the case of negotiated contracts?

Mr. MOORHEAD of Pennsylvania. Mr. Chairman, if the gentleman will yield, the short answer is "Yes."

Mr. BROOKS. Mr. Chairman, I have one further question.

This bill authorizes the President to install Government-owned equipment in privately owned facilities. Is it the committee's intent that the equipment so installed: First, shall remain government property; Second that reasonable charges are to be assessed private users or that appropriate adjustments are to be made on Federal Government purchases; and third, that such property is to be disposed of under the requirements of existing law relating to the disposal of surplus Government property?

Mr. MOORHEAD of Pennsylvania. Mr. Chairman, if the gentleman will yield, I would say to the gentleman from Texas (Mr. Brooks) that that is the committee's intention.

Mr. BROOKS. Mr. Chairman, I want to thank the gentleman from Pennsylvania (Mr. Moorhead) very much, and I yield back the balance of my time.

Mr. FUQUA. Mr. Chairman, I move to strike the last word.

Mr. Chairman, at this time I would like to engage my colleague, the chairman of the subcommittee, the gentleman from Pennsylvania (Mr. Moorhead) in a colloquy on the definition of national defense programs which is amended by the bill which strikes the word "atomic" from the definition contained in section 702(d) of the Defense Production Act.

I was prepared to offer an amendment in order to clarify this provision, but I am persuaded, after discussing the matter with Mr. Moorhead, that this colloquy would be preferable to clarify the legislative history surrounding this change.

Mr. MOORHEAD of Pennsylvania. Mr. Chairman, will the gentleman yield?

Mr. FUQUA. I am happy to yield to the gentleman from Pennsylvania.

Mr. MOORHEAD of Pennsylvania. Mr. Chairman, I very much appreciate the distinguished gentleman's interest in clarifying the definitions he has referred to. As the gentleman knows, we wanted to offer a bill which is broad enough to provide energy for the defense base, but to retain the established purposes of the act which is limited to those national defense needs only.

Mr. FUQUA. Mr. Chairman, I appreciate the gentleman's response. How then is the language "energy production or construction" to be interpreted? I have read the explanation contained on page 23 of the report which states that the "Committee's intent is to include in the definition of national defense programs all types of energy production or construction, thereby including in the definition the programs for the production of synthetic fuels and synthetic chemical feedstocks contained in the bill's other sections." Although I understand and support the bill's purpose to provide energy production for our defense base, I do not feel that this act is the appropriate vehicle for the demonstration of energy technology.

Mr. MOORHEAD of Pennsylvania. Mr. Chairman, will the gentleman yield?

Mr. FUQUA. I am happy to yield to the gentleman from Pennsylvania.

Mr. MOORHEAD of Pennsylvania. Mr. Chairman, I quite agree that the production goal set by the bill of 500,000 barrels a day of crude oil equivalent of synthetic fuels and chemical feedstocks, within the next 5 years, sets the stage for the basic purposes of the act. I share the gentleman's feeling that the Defense Production Act not be used as the authority for the demonstration of energy technology; otherwise every good sounding idea, and every technology application could be funded by the DOD or by another agency, such as the DOE, under this act. That is not our intent. We feel this act creates new authority for energy production for defense purposes and for defense-related purposes only. The defense industrial base will be critical in time of na-

tional emergency. We need the energy production necessary to keep it going, up to the point of a major conflict. But beyond this, and for the purposes of research and development, the use of this act for such program is inappropriate.

Mr. FUQUA. Mr. Chairman, I want to thank the distinguished gentleman from Pennsylvania (Mr. Moorhead) for his clarification, and I yield back the balance of my time.

The CHAIRMAN. The Clerk will read.

The Clerk read as follows:

DECLARATION OF POLICY

Sec. 2. The second sentence of section 2 of the Defense Production Act of 1950 (50 U.S.C. App. 2062) is amended by striking out the period at the end thereof and inserting in lieu thereof "or to respond to actions occurring outside of the United States which could result in the termination or reduction of the availability of strategic and critical materials, including petroleum, and which would adversely affect the national defense preparedness of the United States. In order to insure the national defense preparedness which is essential to national security, it is also necessary and appropriate to achieve greater independence in domestic energy supplies."

AMENDMENT OFFERED BY MR. DINGELL

Mr. DINGELL. Mr. Chairman, I offer an amendment.

The Clerk read as follows:

Amendment offered by Mr. Dingell: Page 2, beginning on line 12, strike out "including petroleum,".

(Mr. Dingell asked and was given permission to revise and extend his remarks.)

Mr. DINGELL. Mr. Chairman, I want to express high regard for my friend, the gentleman from Pennsylvania, even though I happen to differ with him on the legislation before us.

The Committee on Banking, Finance and Urban Affairs has recognized the Defense Production Act is a limited piece of legislation to enable the President to respond to national emergencies. While the powers granted to the President are sweeping, the major limitation on the powers is that they must be performed to meet national defense purposes. "National defense" is defined in the Defense Production Act to mean programs for military and atomic energy production or construction, military assistance to any foreign nation, stockpiling, space, and directly related activities.

H.R. 3930 deletes the term "atomic" so that national defense would now mean any program for any form of energy production and construction. In addition to that, the act's declaration of policy would be amended by H.R. 3930 to include the development of programs to increase power productive capacity for energy production, and it specifically includes petroleum as a critical material. This is not necessary, since the administration would have the authority to select it as a critical material where they so desire. The practical effect of the language is to broaden the definitions of the act, and it would turn an emergency preparedness law into an energy law. In so doing, it would make all of the Presidential authorities in the law available in the area of petroleum supplies, regardless of their relationship to national

defense. It would have the practical effect of making the whole of the authorities of the Defense Production Act available for such action as exploring or drilling for petroleum, and it would enable whatever Department was designated by the President to have the authority to go into the petroleum business, including drilling, exploration, and other things, with assurance of Government guarantees, Government laws, and also Government purchase authority.

While I favor granting broad powers to the President and while I favor dealing with the questions of defense preparedness, insofar as energy, I do not believe that powers this broad should be granted under this particular act.

The Congress has over a number of years written a series of laws, such as the Emergency Petroleum Allocation Act of 1973, the Natural Gas Policy Act, and all of these include highly specific and numerous safeguards and priority considerations for allocations, such as priorities for agricultural uses and prohibitions on allocations of intrastate gas. None of these protections would be afforded under the Defense Protection Act. The amendment which I offer today, which was printed in the Record, on behalf of a broad list of cosponsors, brings the Defense Production Act back to its purpose as a defense act. The amendment does not define the definition of "national defense" to include energy production or construction, but only for defense-related purposes.

Thus, the President would not achieve new authorities to allocate or ration fuels. And under the language of the committee bill, as we now have it before us, conceivably the President would achieve authorities to ration petroleum products right down to the retail level. So for the reasons mentioned, to keep the President out of the petroleum-drilling business, to keep him out of the petroleum retail rationing proposals, something on which the Congress just refused the President authority, I urge my colleagues to adopt the amendment and to perfect the bill by an amendment which does no hurt, and, which at the same time permits the President to take the necessary steps relating to the actions he must take considering petroleum as a critical and a strategic material, which he would still have the authority so to do.

I urge the adoption of my amendment.

Mr. MOORHEAD of Pennsylvania. Mr. Chairman, I rise in opposition to the amendment.

I think that the Members should understand that when the Defense Production Act was enacted in 1950, supplies of energy, including domestically produced energy, were sufficient to support the maintenance of the industrial preparedness base. Situations have changed. In 1950 we were thinking about scarce minerals and metals, and this affected our strategic and defense posture in the world. Today supplies of energy are scarce. We are faced with an OPEC cartel that can use its power to blackmail us and use it to hamper our defense efforts.

What the gentleman's amendment would do would be to say, "Turn the clock back to 1950, when oil and energy supplies were in plentitude," which is not the case today.

If we are to have a defense production energy base, we have to recognize that today petroleum is a scarce material that can be used to hamper our national defense effort. Therefore, that was the reason

the committee put this language in the bill, and this is the reason it should be maintained. The amendment should be defeated.

Mr. STRATTON. Mr. Chairman, will the gentleman yield?

Mr. MOORHEAD of Pennsylvania. I yield to the distinguished gentleman from New York, a member of the Committee on Armed Services.

Mr. STRATTON. I appreciate the gentleman's yielding to me.

Mr. Chairman, I was not in on the development of this bill, but since it does relate to the Defense Production Act, which is a responsibility of our Armed Services Committee, let me just say that the gentleman is absolutely correct that petroleum is not only a strategic material for the defense of our country, but it has been so recognized for many years. As a matter of fact, up until the oil embargo of 1974, the Committee on Armed Services had total control over the Naval Petroleum Reserve precisely so that adequate supplies of petroleum would be available for the needs of the U.S. Navy or any of the other of our Armed Forces in periods of emergency. In the hysteria of 1974, the Congress saw fit to take that oversight control away from the Committee on Armed Services and to give it to the Committee on Interior and Insular Affairs, and to the Interior Department. The only thing in this petroleum area that we have left over which the Committee on Armed Services still has oversight is not the extensive and valuable Petroleum Reserve No. 4 up in Alaska, that could contain perhaps 30 billion gallons of reserve, but only little Elk Hills, out in California. Nevertheless, our committee has been trying to guarantee and protect those resources for the Navy. In part because, Members of the House know, the Commander in Chief, for some reason or another, would prefer to have our Navy go back to oil-propelled ships rather than use nuclear-propelled ships. So if we are going to be in a position to protect our interests in the Indian Ocean or anywhere else, we are going to have to have petroleum; and there is not enough oil in Elk Hills to keep the Navy going for more than about 3 months.

So this bill is certainly in keeping with the changing needs of our Defense Department. I would strongly oppose the amendment of the gentleman from Michigan, who is trying to suggest that one of the most critical fuels, one of the most critical materials that we get out of the ground, has no relation to national defense. Of course it has a profound relation to national defense and I strongly support the position of the gentleman from Pennsylvania (Mr. Moorhead).

Mr. MCKINNEY. Mr. Chairman, will the gentleman yield?

Mr. MOORHEAD of Pennsylvania. I will be delighted to yield to the gentleman from Connecticut (Mr. McKinney), the ranking minority member of the subcommittee.

Mr. MCKINNEY. Mr. Chairman, I would just like to add to the words that the chairman has stated, that this amendment would, in fact, philosophically totally destroy this bill. We have had very real testimony in secret session from the Defense Department concerning the fact that fuel in this Nation, not just for the needs of the Defense Department, in fact, but fuel is basically threatening our national security in every fashion. It is threatening our national security in our foreign policy. It is threatening our national security through the value of the dollar. It is threatening our national security through the fact that we simply cannot conduct our military affairs.

The CHAIRMAN. The time of the gentleman from Pennsylvania (Mr. Moorhead) has expired.

(On request of Mr. McKinney and by unanimous consent, Mr. Moorhead of Pennsylvania was allowed to proceed for 2 additional minutes.)

Mr. McKINNEY. If the gentleman will yield further what we are looking here at is a total concept. All of this bill is totally defense related. But it is perfectly true that under this bill the President would have the latitude and the leeway to make intergovernmental transfers. So that, for instance, if we can find in Washington—I happen to be an expert on the Blue Plains sewage treatment plant, being on the District of Columbia Committee—some way that that plant could make the gas to heat our Federal buildings, at which point the President could then transfer the heating oil from those Federal buildings to the Navy to run its ships.

I think I have to say this to my friend, the gentleman from Michigan, who has been a strong supporter of my Alaskan oil prohibition, that we simply are going to vote billions and billions of dollars and go home and say to our constituents, "Well, we are going to keep America strong, we are going to keep America safe."

I would suggest, as the gentleman from New York (Mr. Stratton) well knows, this Nation is presently in effect in an indefensible position because of energy. The President must have the right to explore, to build, to manufacture, to synthesize, to do anything else, to keep this country safe.

Mr. STOCKMAN. Mr. Chairman, I move to strike the requisite number of words.

Mr. Chairman, I have been listening to this debate, and I would like to have the attention of the author of the amendment, the gentleman from Michigan, because it has been implied that if we were to have a national emergency or contingency we would have absolutely no tools available to insure that fuel supplies were delivered to the Armed Forces. I have a hard time believing that, because I know that we have on the books today allocation authority that is possessed by the Department of Energy for every petroleum product that we use in the civilian economy or that the military could possibly need.

I would point out further that there is a 100-percent priority in terms of current needs to the military in that allocation program, whether it is for diesel fuels or gasoline or kerosene or any of the other fuels that would be used.

I am wondering why we need redundant authority in this act since it is already provided for.

Mr. McKINNEY. I would suggest to the gentleman, it is something I was not aware of, and I think what most of us forget is that during the time of military crisis, be it the sort of Korean police action or an all-out world war such as World War II, civilian consumption jumps at an even faster rate than military. That is assuming the most stringent of consumer restraints, such as three gallons per car, or get your car off the road and everything else, simply because at that point the entire Nation goes on a 24-hour-a-day system, and you have three shifts at every plant.

I would suggest to the gentleman there is not enough energy, period.

Mr. STOCKMAN. If I could reclaim my time.

Mr. DINGELL. Mr. Chairman, will the gentleman yield?

Mr. STOCKMAN. I yield to the gentleman from Michigan.

Mr. DINGELL. I thank the gentleman.

I think the committee is totally disregarding two facts.

The first is the language of the bill is totally unnecessary for the President to utilize his powers under the Defense Production Act to deal with petroleum supplies to the military, and where it is necessary, rationing, for national defense.

Now, by adding the word "petroleum" here—and I do not know whether the gentleman from Pennsylvania has that intention; maybe he wants to rise and answer at this point. It is my view that this language authorizes rationing right down to the retail level for all purposes. It also authorizes the President to utilize full power in connection with the allocation and the sharing of petroleum and actions to develop petroleum resources throughout the existing system of our economy, regardless of whether or not there is a war at this particular time.

The CHAIRMAN. The time of the gentleman from Michigan (Mr. Stockman) has expired.

(By unanimous consent, Mr. Stockman was allowed to proceed for 2 additional minutes.)

Mr. DINGELL. The gentleman from Pennsylvania has very adroitly avoided the discussion on rationing, which I say is possible under the proposal. The gentleman from Pennsylvania has very adroitly avoided the question of dealing with agricultural priorities which are afforded under the emergency Petroleum Allocation Act and other statutes and also dealing with the various priorities which have been very carefully ingrafted into that particular statute to take care of essential civilian services.

Now, if the gentleman wants to tell us whether he is for rationing or against rationing here, if the gentleman wants to tell us whether that is in fact so, I would be delighted to hear from him.

Mr. MOORHEAD of Pennsylvania. Mr. Chairman, will the gentleman yield?

Mr. STOCKMAN. I yield to the gentleman from Pennsylvania.

Mr. MOORHEAD of Pennsylvania. Let me assure the gentleman it was not the intention of the committee, and I do not think the legislation does authorize rationing. However, because the gentleman from Michigan has raised this point with me, in an effort to be cooperative with the gentleman who is so knowledgeable in this area, when we get to section 3 of the bill, and out of an abundance of caution, although I do not believe it is necessary, I intend to offer an amendment that would read, "Nothing in this act shall be construed to authorize the President to institute, without the approval of the Congress, a program for the rationing of gasoline among classes of end users."

Mr. DINGELL. What about putting the President in the petroleum and exploration business, as this language would? Or what about upsetting the agricultural priorities that are included in the existing laws? Is that the gentleman's intention.

Mr. MOORHEAD of Pennsylvania. Absolutely not.

Mr. DINGELL. Then why not take this amendment, because that is all this amendment does is take care of those particular matters the gentleman says it is not his intention to interfere with?

Mr. MOORHEAD of Pennsylvania. If the gentleman would yield, I think what the gentleman from Michigan failed to realize is this is a Defense Production Act, and what we said by putting in the language "petroleum" was to force the administration to recognize that today, unlike 1950, petroleum is a very scarce, strategic material; and, therefore, this amendment should be defeated.

Mr. STOCKMAN. Mr. Chairman, I would still insist, after listening to this debate, this is an entirely redundant provision of the bill. We have full authority to allocate fuel supplies to the military. They would get 100 percent of their current needs right off the top of the pool before any part of the civilian economy got gasoline or diesel oil. And since there is so much ambiguity and lack of clarity as to what this provision would do beyond rationing at the end-use level or allocating at the marketing level, I think we would be wise to adopt the gentleman's amendment and remove that open-ended and ambiguous authority from the bill.

[Mr. Stratton addressed the Committee. His remarks will appear hereafter in the Extensions of Remarks.]

Mr. VENTO. Mr. Chairman, reading from the Defense Production Act, I look at the addition our subcommittee made to that act, and I find it indeed very modest to obtain the purposes for which we intended in terms of production, synthetic production of various types of fuel, as I read from that act.

I think it should be read in that context, and I listened to the fears that my friends and colleagues, and the gentleman from Michigan, have with regard to this. I am looking at title I of that act, for instance, the existing act the law right now.

It goes on to point out the authority the President should have if he finds certain conditions exist. Right now in the act, and I will read to the gentleman this portion of this because I think it is pertinent to his concern, if the President finds that supplies are scarce, he may go into exploration, production, refining, transportation, conservation of energy supplies, or for the construction and maintenance of energy facilities. And then it goes on.

Mr. DINGELL. Mr. Chairman, will the gentleman yield?

Mr. VENTO. I would yield to the gentleman from Michigan.

Mr. DINGELL. The gentleman makes the point that I was trying to make. It is not necessary to have the language of the committee bill open at this particular point because the President has all of the powers that the gentleman from New York is just complaining he does not have, and because the language of the bill as now amended appears to deal with things like rationing and deal with things like putting the President into the business of drilling for oil.

Mr. VENTO. If I can reclaim my time, I do not see where this new language ends up rationing. I think the President under this title I of the Defense Production Act, not in the declaration of policy we are addressing right now, which is quite independent of that, you know, I think really we are talking about an issue that already is in the act.

If we do not like that particular portion of the act, I suggest we narrow the gentleman's amendment to deal with that. I think it ought to be imposed because it has not brought about the consequence that the gentleman from Michigan envisions is going to be used by putting this in the declaration of policy. I think we are arguing about something in terms of the declaration of policy that is really not at issue. That authority already exists in title I of the act and has not brought about the consequences the gentleman is complaining about.

Mr. DINGELL. Mr. Chairman, will the gentleman yield further?

Mr. VENTO. I will yield to the gentleman.

Mr. DINGELL. For the benefit of the gentleman, I am talking not about the declaration of policy, but about the definition of the term "national defense." The definition triggers a whole series of events I have described, including setting aside agricultural priorities and making possible rationing.

Mr. VENTO. I would say to the gentleman the parameters of when the President can implement those particular things, rationing and other things in title I, are very well laid out, that contracts with declaration of policy, which addresses itself only to production, not the other scenarios the gentleman has indicated a concern about and, therefore, this amendment deserves to be defeated. This amendment is in the declaration of policy of the bill that we have before us.

Mr. ANDREWS of North Dakota. Mr. Chairman, I move to strike the requisite number of words.

Mr. Chairman, I want to commend my colleague and good friend from Pennsylvania for bringing this bill before us. I am concerned about this amendment if it does what my friends say it will do. Our problem in this country today is to find a source of energy supply domestically that we do not have, and our problem today in this Congress is to gain back what we lost almost 3 years ago when we failed by one vote, one vote, to pass a similar piece of legislation.

The danger today is not just in the gas lines or in the high price of the product, but in the possible capriciousness of a few OPEC countries in shutting down our Nation's economy, our Nation's farms, our Nation's trucks, and for those of us who live in the northern tier of States, our ability to heat our homes, and our plants and our business places during the cold winters that we have recurrently.

I have a group in my State that we are proud of, one of the best G. & T. operations in the Nation, Minnesota Power. They have worked with lignite coal for years. Because they are concerned with the problem that they see of a lack of adequate fuel, they have spent their own money on research projects and have hired a consulting group from Ohio, Wentworth Brothers, Inc. They have come up with a plan for a methanol plant from coal that can deliver 7½ million gallons of product a day. It can deliver that at the present price of construction and the present cost of coal at 60 cents a gallon. That is certainly competitive.

But, when they go to the bond markets for money to build this \$2.5 billion plant and the bond market people say sorry, we cannot give you the money because we do not know if the OPEC countries might lower the price on their oil. The only way this group sees, and I see, that we can get this type of a plant going, going incidentally without

the shackles of Government, is to give them a price guarantee saying that the Government, through the Defense Department, will buy this fuel at 60 cents to 65 cents a gallon, which will allow them to move ahead. It is well below the price we can get it for now.

Is this not essentially what the gentleman's bill will do?

Mr. MOORHEAD of Pennsylvania. Mr. Chairman, will the gentleman yield?

Mr. ANDREWS of North Dakota. I am glad to yield to my friend.

Mr. MOORHEAD of Pennsylvania. The economics of this situation are that anybody who wants to invest money recognizes that OPEC, which can raise prices, can also lower and put that corporation into bankruptcy. If there is a defense related purpose, the gentleman's project would qualify for a price floor under this legislation.

Mr. ANDREWS of North Dakota. Actually what we are doing by adopting this type of legislation is not getting the Government into the fuel business, all we are doing is using the same technique we used before at the time of the Korean war when we gave price guarantees to industry or an incentive to build plants. In World War II we did it by the Government moving in and building whole plants and then leasing them to industry. We may well have to do that in the case of oil shale as well as methanol or a host of other fuels, but this is one way of doing it. If the gentleman from Michigan's amendment strikes this part from the bill, as I understand it, it would make it much more difficult for this type of a contract to exist.

Mr. MOORHEAD of Pennsylvania. If the gentleman would yield further, fundamentally if we want a defense and a production bill, the basis for it is that the petroleum is now a strategic material which much more than any previous situation is being used politically against us. For the good of this country we have to recognize that fact, that the situation today with respect to petroleum and energy is different from what is was in 1950. It is now strategic. If we want a bill we would have to defeat this amendment.

Mr. DINGELL. Mr. Chairman, will the gentleman yield?

Mr. ANDREWS of North Dakota. I am glad to yield to the gentleman from Michigan.

Mr. DINGELL. The gentleman from Pennsylvania totally ignores the question. The proposal adds nothing to the President's power over petroleum or anything else in the event that he finds that there is a strategic concern involved. But more importantly, it could move the Defense Production Act from simply producing energy for defense to one which deals with questions like agricultural priorities for use of energy.

The CHAIRMAN. The time of the gentleman has expired.

(By unanimous consent, Mr. Andrews of North Dakota was allowed to proceed for 2 additional minutes.)

Mr. ANDREWS of North Dakota. My colleague expresses this, but this group from my State had tried to contact the Department of Energy on three separate occasions. They could not even get answers to their letters. They have written to the White House, they have not gotten answers other than to state that the President does not have the authority now. They were finally able to meet with DOE people this month and got a good reception. Under the bill of the gentleman from Pennsylvania he maintains the President will have that authority.

Mr. DINGELL. If the gentleman will yield further, the language of the particular amendment does not deal with the question you are addressing at all, nor does this portion of the bill deal with the matter that you are discussing. It simply deals with the question of the President being able to disregard existing law, which has a number of safeguards in it regarding agricultural priorities, priority for the transportation of food-stuffs and things of that kind. I am trying to bring this particular provision into conformity with existing law so the President can use his powers on petroleum where he finds there is a strategic or a defense concern.

If the gentleman cannot understand that—

Mr. ANDREWS of North Dakota. I recognize my colleague's concern about another committee operating on the turf of his committee, and I recognize the fact that all the "i's" ought to be dotted and all the "t's" crossed and all the rest, but quite frankly, what we need is production. I am frankly at the end of the rope as far as looking at excuses the administration has been offering lately. We have had excuses for too long, and I think it is about time that we remove by supporting this bill and get about the business of supplying energy for our country.

The **CHAIRMAN.** The question is on the amendment offered by the gentleman from Michigan (Mr. Dingell).

The question was taken; and the Chairman announced that the yeas appeared to have it.

RECORDED VOTE

Mr. DINGELL. Mr. Chairman, I demand a recorded vote.

A recorded vote was ordered.

The vote was taken by electronic device, and there were—ayes 69, yeas 351, answered "present" 1, not voting 13, as follows:

[Roll No. 279]

AYES—69

Archer	Hansen	Rousselot
Bonior	Jacobs	Rudd
Broomfield	Kelly	Satterfield
Brown, Ohio	Kemp	Schroeder
Butler	Kindness	Sensenbrenner
Carney	Lagomarsino	Shuster
Cheney	Latta	Staggers
Collins, Tex.	Livingston	Steed
Corcoran	Loeffler	Stenholm
Crane, Daniel	Lott	Stockman
Crane, Phillip	Lungren	Symms
Dannemeyer	McDonald	Synar
Daschle	Markey	Thomas
de la Garza	Martin	Traxler
Dingell	Mikva	Treen
Dornan	Moore	Waxman
Eckhardt	Moorhead,	Whittaker
Edwards, Okla.	Calif.	Williams, Mont.
Findley	Ottinger	Wolpe
Frenzel	Paul	Wyatt
Goldwater	Petri	Young, Alaska
Gramm	Quayle	
Guyer	Roberts	
Hammer-	Robinson	
schmidt	Rose	

NOES—351

Abdnor
 Addabbo
 Akaka
 Albosta
 Alexander
 Ambro
 Anderson, Calif.
 Andrews, N.C.
 Andrews, N. Dak.
 Annunzio
 Anthony
 Applegate
 Ashbrook
 Ashley
 Aspin
 Atkinson
 AuCoin
 Badham
 Bailey
 Baldus
 Barnard
 Barnes
 Bauman
 Beard, R.I.
 Beard, Tenn.
 Bedell
 Bellenson
 Benjamin
 Bennett
 Bereuter
 Bethune
 Bevil
 Biaggi
 Bingham
 Blanchard
 Boggs
 Boland
 Boner
 Bonker
 Bouquard
 Bowen
 Brademas
 Breaux
 Brinkley
 Brodhead
 Brooks
 Brown, Calif.
 Broyhill
 Buchanan
 Burgener
 Burlison
 Burton, John
 Burton, Phillip
 Byron
 Campbell
 Carr
 Carter
 Cavanaugh
 Chappell
 Chisholm
 Clausen
 Clay
 Cleveland
 Clinger
 Coelho

Coleman
 Collins, Ill.
 Conte
 Corman
 Cotter
 Coughlin
 Courter
 D'Amours
 Daniel, Dan
 Daniel, R. W.
 Danielson
 Davis, Mich.
 Davis, S.C.
 Deckard
 Dellums
 Derrick
 Derwinski
 Devine
 Dickinson
 Dicks
 Diggs
 Dixon
 Dodd
 Donnelly
 Dougherty
 Downey
 Drinan
 Duncan, Oreg.
 Duncan, Tenn.
 Early
 Edgar
 Edwards, Ala.
 Edwards, Calif.
 Emery
 Erdahl
 Erlenborn
 Ertel
 Evans, Del.
 Evans, Ga.
 Evans, Ind.
 Fary
 Fascell
 Fazio
 Fenwick
 Ferraro
 Fish
 Fisher
 Fithian
 Flippo
 Florio
 Foley
 Ford, Mich.
 Ford, Tenn.
 Fountain
 Fowler
 Frost
 Fuqua
 Garcia
 Gaydos
 Gephardt
 Gibbons
 Gilman
 Gingrich
 Ginn
 Glickman

Gonzalez
 Goodling
 Gore
 Gradison
 Grassley
 Gray
 Green
 Grisham
 Guarini
 Gudger
 Hagedorn
 Hall, Ohio
 Hall, Tex.
 Hamilton
 Hance
 Hanley
 Harkin
 Harris
 Harsha
 Hawkins
 Heckler
 Hefner
 Heftel
 Hightower
 Hillis
 Hinson
 Holland
 Hollenbeck
 Holt
 Holtzman
 Hopkins
 Horton
 Howard
 Hubbard
 Huckaby
 Hughes
 Hutto
 Hyde
 Ichord
 Ireland
 Jeffords
 Jenkins
 Jenrette
 Johnson, Calif.
 Johnson, Colo.
 Jones, N.C.
 Jones, Okla.
 Jones, Tenn.
 Kastenmeier
 Kazen
 Kildee
 Kogovsek
 Kostmayer
 Kramer
 LaFalce
 Leach, La.
 Leath, Tex.
 Lederer
 Lee
 Lehman
 Leland
 Lent
 Levitas
 Lewis
 Lloyd

NOES—Continued

Long, La.	O'Brien	Snowe
Long, Md.	Oakar	Snyder
Lowry	Oberstar	Solars
Lujan	Obey	Solomon
Luken	Panetta	Spence
Lundine	Pashayan	St Germain
McClory	Patten	Stack
McCloskey	Pease	Stangeland
McCormack	Pepper	Stanton
McDade	Perkins	Stark
McEwen	Peyser	Stewart
McHugh	Pickle	Stokes
McKay	Preyer	Stratton
McKinney	Price	Studds
Madigan	Pritchard	Stump
Maguire	Pursell	Swift
Marks	Quillen	Tauke
Marlenee	Rahall	Taylor
Marriott	Railsback	Trible
Mathis	Rangel	Udall
Matsui	Ratchford	Ullman
Mattox	Regula	Van Deerlin
Mavroules	Reuss	Vander Jagt
Mazzoli	Rhodes	Vanik
Mica	Richmond	Vento
Michel	Rinaldo	Volkmer
Mikulski	Ritter	Walgren
Miller, Calif.	Rodino	Walker
Miller, Ohio	Roe	Wampler
Mineta	Rosenthal	Watkins
Minish	Rostenkowski	Weaver
Mitchell, Md.	Roth	Weiss
Mitchell, N.Y.	Roybal	White
Moakley	Royer	Whitehurst
Moffett	Runnels	Whitley
Mollohan	Russo	Whitten
Montgomery	Sabo	Williams, Ohio
Moorhead, Pa.	Santini	Wilson, Bob
Mottl	Sawyer	Wilson, C. H.
Murphy, Ill.	Scheuer	Wilson, Tex.
Murphy, N.Y.	Schulze	Winn
Murphy, Pa.	Sebelius	Wirth
Murtha	Selberling	Wolff
Myers, Ind.	Shannon	Wright
Myers, Pa.	Sharp	Wydlar
Natcher	Shelby	Wyllie
Neal	Shumway	Yates
Nedzi	Simon	Yatron
Nelson	Skelton	Young, Fla.
Nichols	Slack	Young, Mo.
Nolan	Smith, Iowa	Zablocki
Nowak	Smith, Nebr.	Zerferetti

ANSWERED "PRESENT"—1

Bafalis

NOT VOTING—18

Anderson, Ill.	Flood	Patterson
Bolling	Forsythe	Spellman
Conable	Glaime	Thompson
Conyers	Jeffries	
English	Leach, Iowa	

The Clerk announced the following pairs:

On this vote:

Mr. Conyers for, with Mr. Thompson against.

Mr. Whittaker and Mr. Findley changed their vote from "no" to "aye."

Mrs. Byron, Mr. Oberstar, and Mr. Evans of Georgia changed their vote from "aye" to "no."

So the amendment was rejected.

The result of the vote was announced as above recorded.

The CHAIRMAN. Are there additional amendments to section 2? If not, the Clerk will read.

The Clerk read as follows:

EXPANSION OF PRODUCTIVE CAPACITY AND SUPPLY

SEC. 3. (a) Section 301(a) of the Defense Production Act of 1950 (50 U.S.C. App. 2091) is amended by striking out "the Department of the Army, the Department of the Navy, the Department of the Air Force, the Department of Commerce," and inserting in lieu thereof "the Department of Defense, the Department of Energy, the Department of Commerce, the Tennessee Valley Authority,".

(b) Section 301(e)(1) of the Defense Production Act of 1950 (50 U.S.C. App. 2091(e)(1)) is amended—

(1) by striking out "Except with the approval of the Congress, the" and inserting in lieu thereof "The"; and

(2) by striking out "\$20,000,000," and inserting in lieu thereof "\$38,000,000, unless the Committees on Armed Services of the Senate and the House of Representatives have been notified in writing of such proposed obligation and 60 days of continuous session of Congress have expired following the date on which such notice was transmitted to such committees and neither House of Congress has adopted, within such 60-day period, a resolution disapproving such obligation. For purposes of this section, the continuity of a session of Congress is broken only by an adjournment of the Congress sine die, and the days on which either House is not in session because of an adjournment of more than 3 days to a day certain are excluded in the computation of such 60-day period."

(c) Section 302 of the Defense Production Act of 1950 (50 U.S.C. App. 2092) is amended—

(1) in the first sentence, by striking out ", and manufacture of newsprint" and inserting in lieu thereof ", manufacture of newsprint, and production of energy"; and

(2) in the second sentence, by striking out "\$25,000,000" and inserting in lieu thereof "\$48,000,000".

(d)(1) Section 33(a) of the Defense Production Act of 1950 (50 U.S.C. App. 2093(a)) is amended by striking out "and mining of critical and strategic minerals and metals" and inserting in lieu thereof "mining, and production of critical and strategic minerals, metals, and materials".

(2) Section 303(b) of the Defense Production Act of 1950 (50 U.S.C. App. 2093(b)) is amended by striking out "September 30, 1985" and inserting in lieu thereof "September 30, 1995".

(3) Section 303(g) of the Defense Production Act of 1950 (50 U.S.C. App. 2093(g)) is amended by striking out "and upon a certification" and all that follows through "other national emergency,".

(e) Title III of the Defense Production Act of 1950 (50 U.S.C. App. 2061 et seq.) is amended by adding at the end thereof the following new section:

"SEC. 305. (a) The President, utilizing the provisions of this Act and any other applicable provision of law, shall attempt to achieve a national production goal of at least 500,000 barrels per day crude oil equivalent of synthetic fuels and synthetic chemical feedstocks not later than five years after the effective date of this section. The President is authorized and directed to required fuel and chemical feedstock supplies to provide synthetic fuels and synthetic chemical feedstocks in any case in which the President deems it practicable and necessary to meet the national defense needs of the United States.

"(b) To assist in carrying out the objectives of this section, the President, subject to subsections (c) and (d), may—

"(1) contract for purchases of or commitments to purchase synthetic fuels and synthetic chemical feedstocks which may be used as fuels and feedstocks for Government use or resale; and

"(2) encourage the development and production of such synthetic fuels and synthetic chemical feedstocks for national defense preparedness.

"(c) Purchases, commitments to purchase, and resales under subsection (b) may be made without regard to the limitations of existing law, for such quantities, and on such terms and conditions, including advance payments, and for such periods as the President deems necessary except that—

"(1) no contract for purchases or commitments to purchase may be entered into after September 30, 1955, or the achievement of the production goal authorized in subsection (a), whichever occurs first; and

"(2) purchases or commitments to purchase involving higher than established ceiling prices (or if there are no established ceiling prices, currently prevailing market prices as determined by the Secretary of Energy) or anticipated loss or resale shall not be made unless it is determined that supply of synthetic fuels and synthetic chemical feedstocks could not be effectively increased at lower prices or on terms more favorable to the Government, or that such purchases are necessary to assure the availability to the United States of supplies overseas for national defense purposes.

"(d) (1) Except as provided in paragraph (2), any purchase of commitment to purchase synthetic fuels and synthetic chemical feedstocks under subsection (b) shall be made by sealed competitive bidding.

"(2) In any case in which no such bids are submitted to the President or the President determines that no such bids have been submitted which are acceptable to the President, the President may negotiate contracts for such purchase and commitments to purchase.

"(3) Any contract for such purchases or commitments to purchase shall provide that the President retains the right to refuse delivery of the synthetic fuels and synthetic chemical feedstocks involved and to pay the person involved an amount equal to the amount by which the price for such synthetic fuels and synthetic chemical feedstocks as specified in the contract involved exceeds the market price, as determined by the Secretary of Energy for such synthetic fuels and synthetic chemical feedstocks on the delivery date specified in such contract.

"(4) With respect to any person, including any other person who is substantially controlled by such person (as determined by the Secretary of Energy) the President may not award contracts for the purchase or commitment to purchase more than 50,000 barrels per day equivalent of synthetic fuels and synthetic chemical feedstocks.

"(5) In any case in which the President, under the provisions of this section, accepts delivery of and does not resell any synthetic fuels or synthetic chemical feedstocks, such synthetic fuels or synthetic chemical feedstocks shall be used by the appropriate Federal agency. Such Federal agency shall pay the market price, as determined by the Secretary of Energy, for such synthetic fuels or synthetic chemical feedstocks from sums appropriate to such Federal agency for the purchase of fuels and feedstocks and the President shall pay, from sums appropriated for such purpose under the second sentence of section 711(a), an amount equal to the amount by which the contract price for such synthetic fuels and synthetic chemical feedstocks as specified in the contract involved exceeds such market price.

"(e) The procurement power granted to the President by this section shall include the power to transport and store and have processed and refined any products procured under this section.

"(f) When in his judgment it will aid the national defense, the President is authorized to install additional equipment facilities, processes, or improvements to plants, factories, and other industrial facilities owned by the United States Government, and to install Government-owned equipment in plants, factories, and other industrial facilities owned by private persons.

"(g) (1) Subject to paragraph (2), the President is authorized to organize corporations for purposes of achieving the production goal authorized in subsection (a). Any such corporation shall have the power—

"(A) to produce and acquire synthetic fuels and synthetic chemical feedstocks; and

"(B) for purposes of producing synthetic fuels and synthetic chemical feedstocks—

- "(i) to purchase and lease land;
- "(ii) to purchase, lease, build, and expand plants;
- "(iii) to lease such plants to any person; and
- "(iv) to purchase and produce equipment, supplies, and machinery.

"(2) No such corporation may be organized unless both Houses of Congress have been notified in writing of the proposed organization of such corporation and 60 days of continuous session of Congress have expired following the date on which such notice was transmitted to both Houses of Congress and neither House of Congress has adopted, within such 60-day period, a resolution disapproving such organization of such corporation. For purposes of this section, the continuity of a session of Congress is broken only by an adjournment of the Congress sine die, and the days on which either House is not in session because of an adjournment of more than 3 days to a day certain are excluded in the computation of such 60-day period.

"(h) Notwithstanding any other provision of law, products acquired pursuant to the provision of this section which, in the judgment of the President, are excess to the needs of programs under this section, shall be transferred to the national stockpile established pursuant to the Strategic and Critical Materials Stock Piling Act (50 U.S.C. 98-98h) or to the Strategic Petroleum Reserve, when the President deems such action to be in the public interest.

"(i) For the purposes of this section, the terms 'synthetic fuels' and 'synthetic chemical feedstocks' mean fuels and chemical feedstocks produced by the conversion of renewable and nonrenewable resources, including, but not limited to, products produced from coal gasification, coal liquefaction, shale, lignite, peat, solid waste, and other mineral gasification, liquefaction or other conversion, and the conversion of any organic material into fuel."

Mr. MOORHEAD of Pennsylvania. Mr. Chairman, I ask unanimous consent to dispense with further reading of section 3 and that it be printed in the Record and open to amendment at any point.

The CHAIRMAN. Is there objection to the request of the gentleman from Pennsylvania?

Mr. ROUSSELOT. I object, Mr. Chairman.

The CHAIRMAN. Objection is heard.

The Clerk will read.

The Clerk concluded the reading of section 3.

Mr. MOORHEAD of Pennsylvania (during the reading). Mr. Chairman, with the understanding I will not move immediately for closing off debate, I ask unanimous consent that section 3 be considered as read and open for amendment at any point.

The CHAIRMAN. Is there objection to the request of the gentleman from Pennsylvania?

There was no objection.

The CHAIRMAN. The Clerk will report the technical committee amendments to section 3.

Mr. DINGELL. I know I am not very large in size, Mr. Chairman, but I was trying to reserve the right to object.

The CHAIRMAN. The Chair apologizes. The gentleman was on his feet.

The gentleman from Michigan reserves the right to object.

Mr. DINGELL. Mr. Chairman, does the gentleman propose to—just under the reservation, does the gentleman from Pennsylvania propose to limit debate now?

Mr. MOORHEAD of Pennsylvania. No, I just announced I would not at this time limit debate. I would have to say in fairness to the gentleman, sometime I am going to—

Mr. DINGELL. Well up until the time the gentleman said, "At this time," I thought I might not object. "At this time" means what?

Mr. MOORHEAD of Pennsylvania. The gentleman has managed bills on the floor and knows there comes a time when we start repeating ourselves. At that time I will so move.

Mr. DINGELL. Mr. Chairman, would the gentleman tell me when that time is going to come?

Mr. MOORHEAD of Pennsylvania. The gentleman knows, if the gentleman would yield, that you can never tell in advance. I do intend at sometime, after we get a feeling of this, to move to close debate because I think most Members have made up their minds.

If the gentleman wants to object, let us read the bill.

Mr. DINGELL. I will not object, but I do not want the gentleman to get the idea we should restrict the debate to the point where we cannot discuss these matters or offer amendments.

The CHAIRMAN. Is there objection to the request of the gentleman from Pennsylvania (Mr. Moorhead)?

There was no objection.

COMMITTEE AMENDMENTS

The CHAIRMAN. The Clerk will report the technical committee amendments to section 3.

The Clerk read as follows:

Committee amendments: Committee amendment, page 3, line 4, before the word "Congress" insert the word "the".

Page 4, line 20, strike "2061 et seq." and insert "2091-2094".

Page 7, line 11, strike "50,000" and insert "100,000".

Page 9, line 21, strike "98-98h" and insert "98 et seq."

The CHAIRMAN. The question is on the committee amendments.

The committee amendments were agreed to.

Mr. REUSS. Mr. Chairman, I offer an amendment.

Mr. ROUSSELOT. Have we voted yet on the amendments, the committee amendments?

The CHAIRMAN. The Chair would advise the gentleman from California, the committee amendments were agreed to by unanimous consent. The technical committee amendments.

Mr. ROUSSELOT. Well, could we have them explained or is that too much to ask?

Well, the gentleman said without objection.

The CHAIRMAN. The Chair will advise the gentleman that his request does not come in timely fashion.

Mr. ROUSSELOT. I was on my feet.

The CHAIRMAN. The Chair did not see or hear the gentleman address the Chair.

The amendments have been agreed to.

Mr. ROUSSELOT. You will see me on my feet from now on.

The CHAIRMAN. The Chair had that impression.

AMENDMENT OFFERED BY MR. REUSS

Mr. REUSS. Mr. Chairman, I offer an amendment.

The Clerk read as follows:

Amendment offered by Mr. Reuss: Page 7, line 12, add the following:

"With respect to any person, including any other person who is substantially controlled by such person (as determined by the Secretary of Energy), the

President may not award contracts for the purchase or commitment to purchase of more than 75,000 barrels per day equivalent of synthetic fuels and synthetic chemical feed stocks unless both Houses of Congress have been notified in writing of such proposed contracts or commitments and 60 days of continuous session of Congress have expired following the date on which such notice was transmitted to the Congress and neither House of Congress has adopted, within such 30-day period, a resolution disapproving such proposed contracts."

Mr. REUSS. Mr. Chairman, this is a very simple amendment. In order to allay fears about environmental matters, fears about economic matters, fears about monopoly matters, this amendment would provide that any substantial purchase order for more than 75,000 barrels shall be subject to a one-House congressional 30-day vote. That provision does not discombobulate the process of the synthetic fuels legislation but it does give either House of Congress the opportunity to call into question a commitment which it feels for any reason to be unsound.

The mere existence of this monitoring authority is going to make any administration very careful about a synthetic fuels or synthetic chemical feedstocks contract unless it is sure of its ground.

There is in the amendment I put on the Clerk's desk a minor typographical error which I should like unanimous consent to correct. The amendment as read referred to 60 days of continuous session of Congress. In fact, that should be 30 days so that it is consistent with the 30 days disapproval period.

I would ask unanimous consent that that correction be made.

The CHAIRMAN. The Clerk will report the modification of the amendment.

The Clerk read as follows:

Page 7, line 12, add the following: "With respect to any person, including any other person who is substantially controlled by such person (as determined by the Secretary of Energy), the President may not award contracts for the purchase or commitment to purchase of more than 75,000 barrels per day equivalent of synthetic fuels and synthetic chemical feedstocks unless both Houses of Congress have been notified in writing of such proposed contracts or commitments and 30 days of continuous session of Congress have expired following the date on which such notice was transmitted to the Congress and neither House of Congress has adopted, within such 30-day period, a resolution disapproving such proposed contracts.".

The CHAIRMAN. Is there objection to the request of the gentleman from Wisconsin?

There was no objection.

Mr. McKINNEY. Mr. Chairman, will the gentleman yield?

Mr. REUSS. I will be glad to yield.

Mr. McKINNEY. I thank the gentleman for yielding.

I was going to amend the gentleman's amendment and he has most graciously accepted my amendment and put it in the form of his so, therefore, I would feel constrained to go along with the gentleman's amendment on this side.

Mr. MOORHEAD of Pennsylvania. Would the gentleman yield?

Mr. REUSS. I will be happy to yield to the chairman of the subcommittee.

Mr. MOORHEAD of Pennsylvania. Although I have been very reluctant to support amendments that restrict the power to get production going, I think the amendment of the distinguished chairman of the full committee is reasonable and I have no objection on this side.

**AMENDMENT OFFERED BY MR. OTTINGER TO THE AMENDMENT
OFFERED BY MR. REUSS**

Mr. OTTINGER. Mr. Chairman, I offer an amendment to the amendment.

The Clerk read as follows:

Amendment offered by Mr. Ottinger to the amendment offered by Mr. Reuss:
On the sixth line of the amendment, after the word "feedstocks," add "or which involves the commitment of \$100 million or more through purchase commitments, loan guarantees, loans, grants, cost-sharing, or any combination thereof and any other federal commitment,".

Mr. OTTINGER. Mr. Chairman, I congratulate the distinguished chairman of the Committee on Banking and Currency on the intent of the gentleman's amendment, which is that any large contracts should be subject to congressional review.

I do think it has to be extended, however, to be really effective, because a contract to purchase 75,000 barrels per day can involve us in perhaps \$2 or \$3 billions in Federal commitments.

I think that on the really major contracts that are involved, particularly when we consider that you can combine the contract authority with loan guarantees, loans, cost-sharing arrangements under which much of this technology is presently being developed, and bid other Federal Government subsidies, it is vital that we have an opportunity to take a look at all really major commitments; so I have added to the 75,000-barrel equivalent the limitation that we will have that same opportunity to review any contract which involves the Government in a commitment of more than \$100 million.

I think that any arrangement that commits the Government to that much money requires that there be provision for congressional review so that we can examine the financial arrangement entered into by the DOE to be sure the taxpayer is adequately protected.

Mr. DINGELL. Mr. Chairman, will the gentleman yield?

Mr. OTTINGER. I yield to the gentleman from Michigan.

Mr. DINGELL. Mr. Chairman, a plant, a 50,000-barrel-a-day plant, costs about \$1 billion. That is about what it costs. It ought to be understood what we are dealing with.

What the gentleman from Wisconsin would have us do would be to approve plants which would cost \$1½ billion. Since these matters under the bill do not go through the appropriation process or the authorization process, the gentleman is letting an awful lot escape.

The gentleman from New York would bring most of those plants back under the congressional process from which they escaped under the language of the bill and under the language of the amendment as offered by the gentleman from Wisconsin, the chairman of the committee.

Mr. OTTINGER. Mr. Chairman, I thank my friend and colleague from Michigan and I agree with him.

I would like to point out that the amendment of the gentleman from Wisconsin (Mr. Reuss) does not obstruct procurement of synthetic fuels. The gentleman had no intention to obstruct the process. It merely allows for a 30-day period for the Congress to be notified and to have a chance to look at what kind of financial arrangements we are making with Exxon or Gulf or Texas eastern pipeline or some of these other

huge corporations that have come in and tried to dip their hands into the Government pocket. It gives us a chance for that limited period to have a look at them and assure that the subsidies do not exceed 100 percent of the costs—which is entirely possible under this act—and that the other interest of the taxpayers are adequately protected.

Mr. McKINNEY. Mr. Chairman, will the gentleman yield?

Mr. OTTINGER. I would be glad to yield to the gentleman from Connecticut.

Mr. McKINNEY. Mr. Chairman. I find it a little bit impossible to sit here and discuss intelligently an amendment that the minority side has not seen. I would hope the gentleman could show us the courtesy of giving us a copy, so that we can look at it.

Mr. OTTINGER. Mr. Chairman, I believe I gave the gentleman a copy, but I would be glad to give him another.

Mr. Chairman, what this amendment does is to take the excellent procedure which the gentleman from Wisconsin has prescribed, which is merely a 30-day look at whatever arrangements the Department of Energy may make and apply this protection not only to contracts for the production of 75,000-barrels a day, but also to arrangements which involve a total commitment by the Federal Government by any means of more than \$100 million.

I would hope that this amendment would be accepted.

Mr. GOLDWATER. Mr. Chairman, will the gentleman yield?

Mr. OTTINGER. I will be glad to yield to the gentleman from California.

Mr. GOLDWATER. Mr. Chairman, I would rise in support of the gentleman's amendment. I think it makes a lot of sense. We are not talking about a small kind of activity here. We are talking about an awful lot of money and certainly an awful lot of power in the hands of the administration.

I would hate to think that this administration or any administration would have that kind of power to apply these various processes, whether they are loan guarantees or price supports or cost sharing to one particular process over another without an opportunity of this branch of the government to have some input.

I think it is a significant action that we are taking.

I think by rejecting or putting the Congress in the process provides for accountability and I think it is a good amendment.

Mr. McKINNEY. Mr. Chairman, will the gentleman yield?

Mr. OTTINGER. Yes; I would be glad to yield.

Mr. McKINNEY. Mr. Chairman, I have a problem with the gentleman's amendment in the form of the dollar amount. You know, in this body we pass \$100 million bills under suspension with three people voting on them on the floor of the House. One hundred million dollars in this process that we are talking about is a very, very minute amount of money. We are talking in the probabilities of, for instance, some plants costing \$1,500 million to \$2 billion. Some of the Defense Department estimates are even bigger.

I was hoping that if the gentleman would accept and could get unanimous consent to change his amendment to \$500 million, I would be willing to support it.

The CHAIRMAN. The time of the gentleman from New York (Mr. Ottinger) has expired.

(At the request of Mr. McKinney, and by unanimous consent, Mr. Ottinger was allowed to proceed for 2 additional minutes.)

Mr. OTTINGER. Mr. Chairman, I think that gets very high, because you can build these units in modules. I would be willing to increase the amount shall we say to \$300 million.

Mr. MCKINNEY. Mr. Chairman, if the gentleman will yield further, I really am not in an auction. I have tried to talk with the staff who have spent along with this Member hours and hours studying this particular piece of legislation. I feel if we get below \$500 million I would have to object to the gentleman's amendment.

Mr. OTTINGER. I really think that very major commitments we make on this ought to be subject to congressional approval.

I will ask unanimous consent to raise the amount to \$300 million.

Mr. MCKINNEY. Mr. Chairman, if the gentleman will yield further, I still am really trying to cooperate, but I have just got to go by my staff's opinion that to go below \$500 million would be to obstruct the process, which is, after all, the Defense Production Act and it is something that should be expeditiously carried forward.

Mr. OTTINGER. If I get the gentleman's support, I guess it is the best I can get.

Mr. Chairman, I ask unanimous consent that the figure be raised to \$500 million.

The CHAIRMAN. Is the gentleman propounding a unanimous-consent request?

Mr. MCKINNEY. Mr. Chairman, I say to the gentleman, the gentleman will get some minority support. I cannot, of course, speak for my chairman. I will let the gentleman address that issue if the gentleman in the well will yield to him.

The CHAIRMAN. Does the gentleman from New York wish to propound a unanimous-consent request?

Mr. OTTINGER. Mr. Chairman, I will request that the amount be increased to \$500 million.

The CHAIRMAN. Is there objection to the request of the gentleman from New York?

There was no objection.

The CHAIRMAN. The Clerk will report the modification to the amendment.

The Clerk read as follows:

or which involves the commitment of \$500 million or more through purchase commitments, loan guarantees, loans, grants, cost-sharing or any combination thereof and any other federal commitments.

Mr. OTTINGER. Mr. Chairman, I ask for support of the amendment. Certainly at the level of one-half billion dollars, this ought to have the unanimous support of the Members of the House.

Mr. MOORHEAD of Pennsylvania. Mr. Chairman, I move to strike the requisite number of words. I rise in opposition to the amendment.

Mr. Chairman, I reluctantly agreed to the limitation put on by the chairman of the full committee in terms of barrels, because that is consistent with the purchase authority when we are talking about a capacity of 500,000 barrels per day. At no point in this legislation do we talk in terms of dollars. We have had no testimony relating dollars to barrels; so a barrel limitation is consistent with the purposes of the act. A dollar limitation is not.

With the amendment of the chairman of the full committee, we have these limitations:

No. 1, these bids must be competitive sealed bids.

No. 2, no corporation can contract for more than 100,000 barrels. That means that at least five, and I hope many more corporations, many more will be competing for the bid; but on the operating, there will be at least five and hopefully more.

Finally, the process is subject to the limitation that even over 75,000 barrels, and again I stress barrels per day, there is the congressional veto in the amendment of the gentleman from Wisconsin, the chairman of the committee.

Finally, the whole process is subject to the appropriations process. I think if we want to keep this bill consistent, if we want to have production, if we want to have defense production, we should not accept any more restrictive amendments, because this legislation is carefully crafted and as amended, is even tighter in its restrictions and I believe that this country wants us to move forward without technical restrictive hamstringing amendments.

Mr. Chairman, I urge defeat of the amendment.

[Mrs. Fenwick addressed the Committee. Her remarks will appear hereafter in the Extensions of Remarks.]

Mr. McKINNEY. Mr. Chairman, I move to strike the requisite number of words.

Mr. MOORHEAD of Pennsylvania. Mr. Chairman, will the gentleman yield?

Mr. McKINNEY. I just want to make a very brief statement, and then I will yield.

Mr. MOORHEAD of Pennsylvania. Mr. Chairman, if the gentleman will yield, I was just going to see if we could have an agreement by unanimous consent on limitation of debate on this amendment, the Ottinger amendment.

Mr. Chairman, I ask unanimous consent that all debate on this amendment close in 10 minutes.

The CHAIRMAN. Is there objection to the request of the gentleman from Pennsylvania?

Mr. ROUSSELOT. Mr. Chairman, reserving the right to object, the gentleman has referred to the Reuss amendment, as amended; is that correct?

Mr. MOORHEAD of Pennsylvania. No. Mr. Chairman, if the gentleman will yield, I refer to the Reuss amendment and the Ottinger amendment, because I think the Reuss amendment is agreed to in principle, so we are really just talking about debate on the Ottinger amendment.

Mr. ROUSSELOT. And the gentleman suggests 10 minutes?

Mr. MOORHEAD of Pennsylvania. What I am suggesting is that in 10 minutes we close such debate.

Mr. ROUSSELOT. Mr. Chairman, I appreciate the gentleman's comment, and I withdraw my reservation of objection.

The CHAIRMAN. Is there objection to the request of the gentleman from Pennsylvania?

There was no objection.

The CHAIRMAN. The gentleman from Connecticut (Mr. McKinney) had been recognized before the limitation of debate, and he is now recognized for 5 minutes.

Mr. McKINNEY. Mr. Chairman, I would just say to my friend, the gentleman from New York (Mr. Ottinger), that although the change in his numbers makes his amendment far more palatable, I think the chairman of the subcommittee has brought forth a very good argument that we are somewhat mixing apples and oranges here.

Since the bill does talk about barrels or barrel equivalents, it is difficult to put a dollar figure into that situation, and I think it confuses somewhat our thinking on the problem.

Mr. OTTINGER. Mr. Chairman, will the gentleman yield?

Mr. McKINNEY. Yes, I yield to the gentleman from New York.

Mr. OTTINGER. Mr. Chairman, it is somewhat ironic to have the Members involved in the Committee on Banking, Finance and Urban Affairs tell us they do not know anything about money. It just stretches our credibility that there could have been no evidence before the Committee on Banking, Finance and Urban Affairs on what all this is going to cost.

I understand the gentleman, in response to my agreeing to the half billion dollars, said he was going to support the amendment. If we do not maintain some effective control on the subsidies granted under this bill, then we are in effect telling the taxpayer that we going to "roll out the barrel and damn the cost."

Mr. McKINNEY. Mr. Chairman, I would suggest to the gentleman, if he will allow me to regain my time, that the members of the Committee on Banking, Finance and Urban Affairs do know a little bit about money, and what we are assured of right now is that we are not in control of our economy. Any Members of this Congress who think we are are just kidding themselves.

There are two meetings going on in the world right now, one over in Geneva and the other one over in Japan, where foreign nations are far more in control of our Congress than this particular body is.

Mr. STANTON. Mr. Chairman, will the gentleman yield?

Mr. McKINNEY. I yield to the gentleman from Ohio.

Mr. STANTON. Mr. Chairman, I think we should not forget so soon, because we only said it a few minutes ago, that the chairman of the subcommittee did remind all of us that whatever we do and whatever amount we do stipulate is subject to the appropriations process.

They are subject, are they not, to the ordinary appropriations process? Am I correct in that?

Mr. McKINNEY. Mr. Chairman, the gentleman is absolutely correct.

The CHAIRMAN. The time of the gentleman from Connecticut (Mr. McKinney) has expired.

Members standing at the time the unanimous consent request was agreed to will be recognized for 1 minute each.

The Chair recognizes the gentleman from New York (Mr. Bingham).

(Mr. Bingham asked and was given permission to revise and extend his remarks.)

Mr. BINGHAM. Mr. Chairman, I am strongly in favor of this bill.

I thought that the gentlewoman from New Jersey (Mrs. Fenwick) made a passionate and effective argument in favor of the bill, but her argument was not directed against this amendment. This is a reasonable amendment.

My goodness, we are talking here about contracts, now that the gentleman has modified his amendment, amounting to half a billion dollars. All the amendment says is that the Congress should still have the opportunity to take a look at those contracts, and if we do not like a contract, one House can veto it.

Mr. Chairman, I think that is a highly reasonable provision. I do not expect to support all the amendments to this bill. However, the amendment offered by the committee chairman, the gentleman from Wisconsin (Mr. Reuss), was a reasonable amendment. This is a reasonable amendment, too.

The CHAIRMAN. The Chair recognizes the gentleman from California (Mr. Rousselot).

Mr. ROUSSELOT. Mr. Chairman, I wonder if the chairman of the subcommittee could tell us why \$500 million, as the gentleman from New York (Mr. Bingham) has just pointed out—and that is half a billion dollars proposal—should not that be a trigger point to come back to Congress for review?

I realize that we get used to talking about billions here and billions there, but why is this not a reasonable take-off point for the House or the Senate to review this contracting procedure?

Mr. MOORHEAD of Pennsylvania. Mr. Chairman, will the gentleman yield?

Mr. ROUSSELOT. Yes, I will be glad to yield to the gentleman from Pennsylvania.

Mr. MOORHEAD of Pennsylvania. Mr. Chairman, if the gentleman will read this section of the bill carefully, he will understand that it is a bid price mechanism price related to a price per barrel.

Mr. ROUSSELOT. Yes; I understand that.

Mr. MOORHEAD of Pennsylvania. And the cost, as explained by the Congressional Budget Office—and I refer the gentleman to the committee report, beginning at page 27 of the report—depends on the variation between the synthetic fuel price and the OPEC price. If the OPEC price is higher, not only will it not cost anything but the Government will save money.

Mr. ROUSSELOT. But the Congress should review that kind of guarantee.

The CHAIRMAN. The time of the gentleman from California (Mr. Rousselot) has expired.

(By unanimous consent, Mr. Stratton yielded his time to Mr. Moorhead of Pennsylvania).

The CHAIRMAN. The Chair recognizes the gentleman from Maine (Mr. Emery).

(Mr. EMERY asked and was given permission to revise and extend his remarks.)

Mr. EMERY. Mr. Chairman, I rise in opposition to the amendment, noting two facts.

First of all, there is an appropriation process that will provide an orderly and rational review of the expenditures provided for by this legislation.

Secondly, I think we are putting our collective necks in a familiar old noose. We are trying to tie up an important energy program in unnecessary bureaucracy and redtape. We have seen comment and review periods added to legislation, and amendments creating count-

less numbers of veto procedures that this House has passed in the last few years. The result has been delay, the result has been procrastination and the result has been increased cost of the ultimate purpose of our labors.

With the necessary reviews that are built into the bill by the Reuss amendment, with the review that exist within the Committee on Appropriations, I see this amendment as just another unnecessary fifth wheel on the synthetic fuels cart, and I urge that the amendment be defeated.

The CHAIRMAN. The Chair recognizes the gentleman from Michigan (Mr. Dingell).

(Mr. Dingell asked and was given permission to revise and extend his remarks.)

Mr. DINGELL. Mr. Chairman, I wonder if my colleagues are aware of the amount of money we are talking about in the long-range commitment being made. The contracts here, as included in the amendment offered by the gentleman from New York (Mr. Stratton), are for half a billion dollars. The exposure might be for all of that, for part of it, or for none of it, with very little congressional review.

There is not undue delay. As a matter of fact, the one thing that should be noted about the bill is that under the bill the contract may be negotiated. The provisions for a sealed competitive bid can be waived by the President almost at a whim. As a matter of fact, it can be done in the dark on long-range commitments which can go for as long as 10, 20 years, or more. With the figures the majority leader is going to add in terms of increasing the procurement authority, the figures can grow much larger and the liability of the public can increase much more.

Mr. Chairman, all I am saying is that we ought to have a chance to look at these figures when they get very large. When they get to half a billion dollars, we ought to be able to look at them. I think we should support the amendment offered by the gentleman from New York (Mr. Ottinger). We must protect the taxpayer.

The CHAIRMAN. The Chair recognizes the gentleman from California (Mr. Badham).

(Mr. Badham asked and was given permission to revise and extend his remarks.)

Mr. BADHAM. Mr. Chairman, I would like to associate myself with the remarks made by the gentleman from Maine and the gentleman from Hawaii. Basically, what we are doing by this amendment is preventing American industry from using its technological ability to produce what it has been prevented from producing heretofore, because of over regulation and bars to capital formation. If we were to use the sensible route of decontrol and the sensible route of allowing formation of capital in the United States of America again, our industrial expertise and our technological capabilities would allow the production of synfuels, nuclear fuels, coal, oil, gas, and others in order to make our Nation energy self-sufficient.

The CHAIRMAN. The Chair recognizes the gentleman from Texas (Mr. Wright), the majority leader.

Mr. WRIGHT. Mr. Chairman, I hope that the Members will reject the Ottinger amendment. It would slow things down. Given the size of an investment that is necessary to build one of these plants, it would make

almost every contract subject to congressional review. It would be somewhat unprecedented. If indeed this energy crisis is the moral equivalent of war, and I believe that it is, then we do not want to throw impediments in the path of a program that we command the President to undertake and fulfill. For those reasons I would hope that the amendment would be rejected.

The CHAIRMAN. The Chair recognizes the gentleman from New York (Mr. Ottinger).

Mr. OTTINGER. Mr. Chairman, all this does is it takes the mechanism which the committee has accepted, as proposed by the gentleman from Wisconsin (Mr. Reuss), for plants designed to produce 75,000 barrels or more, and applies it to situations where the total Government support is more than one-half billion dollars.

Contrary to what was said just recently, we do not have the protection of the appropriation process; to the extent that loan guarantees are used, appropriations of \$1 will support loan guarantees of \$10, and you do not have a periodic congressional review of that.

I think when you have that major a Federal commitment and you have the kind of contracts that I see day after day the Department of Energy engages in with the major producers in this country without adequate protection, it is important that we have some safeguards. This is simply the very process, a mere 30-day review that was proposed by the chairman of the Committee on Banking, Finance, and Urban Affairs and acceptable to the committee, and applies it to every really major contract of one-half billion dollars or more.

I hope that the amendment will be approved.

The CHAIRMAN. The Chair recognizes the gentleman from Pennsylvania (Mr. Moorhead) to close debate.

Mr. MOORHEAD of Pennsylvania. Mr. Chairman, I rise in opposition to this amendment.

Quite frankly, Mr. Chairman, this amendment would make this bill unworkable and, if the Members vote for it, they are voting against defense-related production and energy.

What does this purchase agreement do? It says that if someone wants to produce synthetic fuel, he bids a certain price per barrel.

If the OPEC price goes above that price, there is no cost to the taxpayer. But if this legislation or other events causes OPEC to drop its prices, then it will cost the taxpayer money. I do not know how much. But if we can succeed in persuading OPEC to lower its prices, why, our economy is so much better off that the taxpayer is better off. So if we treat this as the carefully worked out bill of the committee did and the carefully structured amendment by the chairman of the full committee, in terms of barrels, we have the check and the limitation that we need. We do use dollars when we are talking about direct loans and loan guarantees because that is a different concept. But this concept, to make it workable, we cannot tell how much it will cost. The more OPEC lowers its prices, the more it will cost the taxpayer, but the better off the country will be.

I think for the good of the country, for the good of producing energy under the free enterprise system, this amendment should be defeated.

The CHAIRMAN. All time has expired.

The question is on the amendment offered by the gentleman from New York (Mr. Ottinger) to the amendment offered by the gentleman from Wisconsin (Mr. Reuss).

The amendment to the amendment was rejected.

The question is on the amendment offered by the gentleman from Wisconsin (Mr. Reuss).

The amendment was agreed to.

AMENDMENTS OFFERED BY MR. WRIGHT

Mr. WRIGHT. Mr. Chairman, I offer amendments.

The Clerk read as follows:

Amendments offered by Mr. Wright: Page 5, line 2, strike out the period after "section" and insert in lieu thereof "and at least 2,000,000 barrels per day crude oil equivalent of synthetic fuels and synthetic chemical feedstocks not later than ten years after the effective date of this section."

Page 5, line 24, strike out "goal" and insert in lieu thereof "goals".

Page 8, line 16, strike out "goal" and insert in lieu thereof "goals".

Page 10, line 23, strike appropriated \$2,000,000,000" and insert in lieu thereof "appropriated from general funds of the Treasury not otherwise appropriated or from any fund hereafter established by Congress after the date of enactment of this sentence not to exceed \$3,000,000,000".

Mr. WRIGHT. Mr. Chairman, I ask unanimous consent that the amendments may be considered en bloc.

The CHAIRMAN. Is there objection to the request of the gentleman from Texas?

Mr. JEFFORDS. Mr. Chairman, reserving the right to object, I have a substitute to one part, the part that is in section 3 of the amendments. My parliamentary inquiry is, if the amendments are considered en bloc, whether or not I can offer as a substitute an amendment to the part which appears in section 3?

The CHAIRMAN. The Chair would advise the gentleman that any germane amendment to the amendments offered en bloc would be in order.

Mr. JEFFORDS. Mr. Chairman, further reserving the right to object, it is my understanding that, if I have a substitute to one part of the amendments offered en bloc, that is in order if it is germane; is that correct?

The CHAIRMAN. That is correct.

Mr. JEFFORDS. Mr. Chairman, I withdraw my reservation of objection.

The CHAIRMAN. Is there objection to the request of the gentleman from Texas?

Mr. ROUSSELOT. Mr. Chairman, reserving the right to object, can the gentleman tell us how many amendments he is offering en bloc?

Mr. WRIGHT. Mr. Chairman, if the gentleman will yield, there are two amendments, one to title III and one to title IV.

That is why I asked unanimous consent that they may be considered en bloc. I think that they kind of go together, because one would increase the production goal and the other would increase the allowable appropriation.

Mr. ROUSSELOT. Mr. Chairman, I thank the gentleman, and I withdraw my reservation of objection.

The CHAIRMAN. Is there objection to the request of the gentleman from Texas?

Mr. BROWN of Ohio. Mr. Chairman, reserving the right to object, the fact that the gentleman is offering en bloc an amendment to title III and an amendment to title IV does not automatically move us into title IV and preclude other amendments to title III, does it?

The CHAIRMAN. The gentleman is correct.

Mr. BROWN of Ohio. I thank the Chair, and I withdraw my reservation of objection.

The CHAIRMAN. Is there objection to the request of the gentleman from Texas?

There was no objection.

The CHAIRMAN. The gentleman from Texas (Mr. Wright) is recognized for 5 minutes in support of his amendments.

Mr. WRIGHT. Mr. Chairman, the amendments that I offer would increase the goal from the 500,000 barrels a day that we authorized and direct the President to achieve by 1985 or by 5 years from the enactment date to encompass an additional goal of 2 million barrels a day by 1990. We believe that is an achievable goal. The administration says that it is an achievable goal. The Department of Energy says that this goal can be achieved.

Why should we go to 2 million barrels a day instead of just stopping at 500,000? Quite obviously because the great problem that confronts this Nation, the problem that is getting worse and not better, is our growing vulnerability to and reliability upon foreign nations, particularly OPEC nations, for our supply. That is why we have shortages now, because we are importing almost 9 million barrels daily. Almost 9 million barrels a day. That is our deficiency. It certainly is not too much to commit ourselves in 10 years to produce at least 2 million barrels to reduce our Nation's vulnerability.

What is happening of course is that our known commercially and technologically producible oil reserves have been falling from approximately a 10- to 13-year supply in the 1940's and 1950's, to what now is about a 5-year and 4-month supply.

We hope and believe that we will find more oil. We also must find ways to produce more of what we have discovered, but presently this is what we have to count upon.

The supply of producible natural gas is a similar picture. What was perhaps a 40-year supply of producible natural gas in the 1940's has declined to probably a 10-year supply today.

The dangerous picture that we see when we look to our economic vulnerability is even more alarming.

In 1973, the Arab embargo really should have shocked us out of our lethargy and into doing something dramatic, but it did not. That year we were importing 6.2 million barrels a day of foreign oil. Now we are importing 8.6 million barrels a day of foreign oil. The cost, the drain on the American economy, has grown exponentially.

In 1973, foreign oil imports cost this Nation some \$8 billion. This year it is expected to drain \$60 billion out of the American economy. That is \$60 billion that could be spent producing American jobs and producing American materials. We have grown terribly vulnerable to

just about anything the OPEC nations want to do to us by way of price.

Another dimension of the problem is seen when we begin to look at those upon whom we have become reliant. How reliable are they?

We have seen what happened when production from Iran was interrupted by a domestic disturbance. Right now that disturbance still is sending shock waves through our economy.

What would happen, and how much worse could it be, if that same thing were to occur with respect to Saudi Arabia, the most prolific of our producers, upon whom we rely for approximately $11\frac{1}{2}$ million barrels daily of that imported oil?

Already four of the nations upon whom we rely for our oil supply have publicly asserted their hostility toward us. Those shown on these charts in red—Libya, Algeria, Iraq, and Iran—together account for 2,300,000 barrels daily, or approximately 26 percent of our imports.

Our second largest supplier, Nigeria, just a few weeks ago publicly lectured us to the effect that if we did not take the action they approved of with regard to the recognition of the government in Zimbabwe-Rhodesia, they would find ways not to make their oil available to us. We are relying on them for a million barrels a day.

Just a few days ago, a spokesman for Saudi Arabia suggested very darkly that, in view of our reliance on them for oil, they felt it was time for us to begin to negotiate with the PLO.

What I am saying, my friends, is that the time has come for us to do everything within our power to break the stranglehold upon this country that foreign nations are asserting.

We do not have a lot of time left, but we have time to do what we must.

The CHAIRMAN. The time of the gentleman from Texas (Mr. Wright) has expired.

(By unanimous consent, Mr. Wright was allowed to proceed for 5 additional minutes.)

Mr. WRIGHT. Mr. Chairman, I think the answer is synthetic fuels. I want to congratulate this committee on having come to us with a very imaginative and, I think, very workable program. It builds upon the historic success, not the failures, of this country.

In 1941, when the Japanese cut off our supplies of rubber, we built a synthetic rubber industry in this country. Three years later, when the Allies rolled into Berlin, they rolled in on synthetic rubber tires made by an indigenous American synthetic rubber industry.

We have enough coal, and that is only one of the synthetic sources that would be authorized by this bill, to last us for many years. We could be the Middle East of the world in coal. We have producible coal in commercial quantities in 26 of our States. We have one-third of the world's known supply of coal.

If we compare our coal reserves in longevity with our known oil reserves, we see a stark contrast. We have 5.4 years of presently economically recoverable oil reserves. Let us assume that decontrol, by allowing some of the marginal and small wells to continue producing, will add some 2 or 3 years of additional supply. Tertiary recovery, if perfected, would add some more. Even upon these assumptions, we

still would have only some 16 years of known recoverable supply of oil.

But we have 620 years of known supply, at our present rate, of minable coal. We could double the conventional use of coal and convert enough to make 4 million barrels a day of synthetic fuel, and still have enough for 218 years—legally and technologically minable coal reserves.

Here is what the committee bill builds on. It tries to create a mechanism by which we can attract the private sector into making the kinds of investment that otherwise of course they are not going to make in synthetic plants.

There is not anything new in the technology, of course. It has been known for years. The Germans ran their war machine on synthetic gasoline made from coal, and a formidable thing it was. As early as 1952, the Paley Commission warned us we were going to run out of oil and we should begin to build commercial synthetic oil from coal. The South Africans now have such a plant. It is highly successful.

The point of it is that world oil prices today are about \$20 a barrel. They have gone up 35 percent since the first of this year. We think we probably can produce synthetic fuel—I do not know that this is true, but the Department of Energy people think it is—for somewhere in the range of \$28 a barrel. That is more than we are paying right now for foreign oil, but the rate at which that oil price is rising, I believe, indicates that within 4 or 5 years when the first commercial plants come on the line, we will be making our own synthetic fuel cheaper than we could be buying oil from the Arabs and other foreign suppliers.

It seems to me that President Valéry Giscard-d'Estaing was exactly right when just a few days ago he was quoted by James Reston in an interview as saying:

I am convinced on the day the United States will really start to move in the production of synthetic fuels, there will be a major change in the world situation.

The American public realizes this and fully supports it.

I was talking with Lou Harris just a few days ago. He revealed to me a hitherto-unpublished sampling throughout the country. The public, was asked, Should we spend \$10 billion for synthetic fuel? And that I think is far more than will ever be spent under this legislation. I think we will not lose anything because I believe, we will discover, as we did discover in the synthetic rubber industry, when we committed ourselves to do it, that it was a depressant on natural rubber prices. We built it and made it cheaper than the raw rubber was costing us. I think this program may not cost us anything. But the public was asked, "Should we spend \$10 million for the synthetic fuels industry in this country?" As I recall the answer, it was, "yes," 76 percent; "no," 18 percent.

I suggest, my colleagues, that the public is ahead of us. They want bold action. They do not want timid action. They want us to make a major commitment that this Nation is going to be energy sufficient again. This is the best opportunity we have had to make that commitment.

I earnestly ask your support for this amendment, which would commit us to at least 2 million barrels a day of American production in an American industry 10 years from now.

The CHAIRMAN. The time of the gentleman from Texas (Mr. Wright) has expired.

(At the request of Mr. Brown of Ohio and by unanimous consent Mr. Wright was allowed to proceed for 5 additional minutes.)

Mr. BROWN of Ohio. Mr. Chairman, will the gentleman yield?

Mr. WRIGHT. I yield to my colleague from Ohio.

Mr. BROWN of Ohio. Mr. Chairman, as the majority leader knows. I am very sympathetic with his concern. The gentleman had a map there of the United States that showed the potential areas of coal development which I was impressed with. I am under the impression that in coal lands out West we have the great potential for development, and we also have potential for the gasification of coal in the East and Midwest, coal that is otherwise environmentally constrained by the Clean Air Act and so forth, and perhaps we can turn that into liquid fuel or gaseous fuel.

Then I noticed there are other deposits in the West. I am advised by an April 1979, Office of Technology Assessment publication that some 28 percent of the identified petroleum and 31 percent of the identified natural gas in the country and 72 percent of the oil shale land is under Federal land control. I wonder if those parts out West are in that? I would assume they are; is that correct?

Mr. WRIGHT. I would say to the gentleman I am sorry, I do not know the answer to that. I would assume that a substantial percentage of the Western lands on which coal is commercially minable may be in the public domain, but I have no specific information to that effect.

Mr. McKAY. Mr. Chairman, will the gentleman yield?

Mr. WRIGHT. Of course I yield to my distinguished friend.

Mr. McKAY. In answer to the gentleman's question, if you go into Utah and Nevada in Utah 70 percent of that State, and Colorado is in a similar position, 70 percent of the State of Utah is Federal land, BLM, forest service, parks, whatever. The same thing is true in all of the Rocky Mountain States, if you take the Rocky Mountain Chain from Montana through to Arizona and New Mexico. It is very heavily federally owned land, anywhere from 35 to 85 percent in Nevada is Federal land.

Mr. BROWN of Ohio. Mr. Chairman, will the gentleman yield?

Mr. WRIGHT. I yield to the gentleman.

Mr. BROWN of Ohio. Mr. Chairman, gentleman from Texas' (Mr. Wright) graciousness. What the gentleman from Utah is telling us is much of this is under Federal land control. The question of whether or not it can be mined or drilled is really a question of whether or not the land management acts and the regulations will permit us to mine it or to drill it, never mind whether the money is available or not to do it; is that right?

Mr. McKAY. If the gentleman will yield further?

Mr. WRIGHT. Of course I yield to my friend.

Mr. McKAY. That will be part, yes, that will be part of it. As I understand, the gentleman from Arizona has some things that he will be dealing with here that may help us in that regard as we go along.

Mr. BROWN of Ohio. It may come as no surprise that the gentleman of Ohio also has a similar amendment.

Mr. PERKINS. Mr. Chairman, will the gentleman yield?

Mr. WRIGHT. I yield to the gentleman from Kentucky.

Mr. PERKINS. I wish to thank the majority leader for yielding. I wish to inform the gentleman from Ohio (Mr. BROWN) since 1975 the coal production in the West, in the same States, has increased 300 percent, from 75 million to 200 million tons this year.

Mr. KELLY. Mr. Chairman, will the gentleman yield?

Mr. WRIGHT. Yes, of course I yield to the gentleman.

Mr. KELLY. I thank the gentleman for yielding.

The gentleman, in support of his amendment, said this is the time for bold action and the gentleman's amendment quadruples the production goal of the bill. I ask the gentleman then will he be in support of two amendments that I have. One would increase the guarantee levels. The other would increase the loan levels, the latter from \$48 million to \$125 million and the former from \$38 million to \$100 million, because if we are going to have war, you do not fight war on \$38 million.

Mr. WRIGHT. If the gentleman will allow, I certainly agree with him that you do not fight a war on \$38 million. I do not believe the bill restricts or limits loan guarantees or loans to \$38 million. I could be mistaken. I will be happy to look at the amendments, and to the extent that they would make the bill more workable, of course, I would be in favor of them. I do not believe it is true that the committee bill limits these projects to \$38 million.

Mr. PERKINS. I wish to thank the majority leader for yielding.

Mr. KELLY. If the gentleman will yield further, I assure the gentleman as far as individual loans are concerned they are limited to the \$48 million that I had reference to and the guarantees are limited to \$38 million. Certainly these are multi-billion-dollar projects.

The CHAIRMAN. The time of the gentleman from Texas has expired. (At the request of Mr. Volkmer and by unanimous consent, Mr. Wright was allowed to proceed for 3 additional minutes.)

Mr. VOLKMER. Mr. Chairman, will the gentleman yield?

Mr. WRIGHT. I yield to the gentleman from Missouri.

Mr. VOLKMER. I wish to say that I too, among others, support this legislation. But one thing that you said at the very last in your initial presentation I think is very important, because most people today want this synthetic fuel now. They want this kind of fuel right now, tomorrow, 6 months from now. I think it is very important that you said 10 years from now is what we are driving at because a lot of these things are not going to be able to be used, the Fisher-Tropsch process that the Germans use and a \$1 billion plant and have anything come out, and that is old technology even today. We are not going to have ready our new technology, the SRC process or the H-coal process. Those have not been refined yet.

Mr. WRIGHT. If the gentleman will let me reclaim just a moment, I would like to say it is true that neither this bill nor any bill is going to solve the problems overnight. This bill is not going to stop the gasoline lines tomorrow, nor will any bill. But this will give the American people the heart and the hope to recognize this Nation is moving ahead and we have sunlight at the end of the tunnel.

We are going to solve our problems; we are not going to consign Americans to that kind of inconvenience and declining standard of living forever and a day. We are going to declare our energy inde-

pendence. It may be 5 years before the first commerical synthetic production starts really coming on line. Perhaps it will be 10 years before we can make 2 million barrels a day. This is a minimum goal that my amendment would establish. We shall not solve this problem overnight. I think it would have been infinitely better had the House shown wisdom 4 years ago and begun this program instead of rejecting it by one vote in the last week of the session. We would have been 4 years down the line toward the realization of the goals we have established. Let us not wait any longer.

Mr. VOLKMER. I agree with the gentleman on that.

Mr. MOORHEAD of Pennsylvania. Mr. Chairman, I move to strike the last word and I rise in support of the amendment.

This amendment fits properly within the Defense Production Act because the committee did have a secret, classified session in which the Defense Department witnesses testified that the need of the Defense Department and defense related industries directly involved, not including the energy required to get the workers to the shipyards and the steel mills, would be in excess of the amount considered in the amendment by the gentleman from Texas. I think that the gentleman from Texas has made a very compelling argument and I would support the amendment.

AMENDMENTS OFFERED BY MR. MICHEL AS A SUBSTITUTE FOR THE
AMENDMENTS OFFERED BY MR. WRIGHT

Mr. MICHEL. Mr. Chairman. I offer amendments as a substitute for the amendments.

The Clerk read as follows:

Amendments offered by Mr. Michel as a substitute for the amendments offered by Mr. Wright of Texas: On page 5, line 2, strike out the period after "section" and insert in lieu thereof "and at least 2,000,000 barrels per day crude oil equivalent of synthetic fuels and synthetic chemical feedstocks not later than ten years after the effective date of this section."

On page 5, line 24, strike out "goal" and insert in lieu thereof "goals".

On page 8, line 16, strike out "goal" and insert in lieu thereof "goals".

On page 10, line 23, strike "appropriated \$2,000,000,000" and insert in lieu thereof the following: "appropriated \$3,000,000,000 from any fund hereafter established by Congress after the date of enactment of this section".

Mr. MICHEL (during the reading). Mr. Chairman, I ask unanimous consent that the amendments be considered as read and printed in the Record.

The CHAIRMAN. Is there objection to the request of the gentleman from Illinois?

There was no objection.

The CHAIRMAN. The gentleman from Illinois (Mr. Michel) is recognized for 5 minutes in support of his amendments offered as a substitute for the amendments offered by the gentleman from Texas (Mr. Wright).

Mr. MICHEL. Mr. Chairman, I made mention during the course of general debate on this measure that I would be offering a substitute to the majority leader's amendment and the amendment which I have offered is prompted by the fact that the majority leader testified before the Rules Committee last week stating that he was directed by the Democratic Steering and Policy Committee to offer such an amend-

ment. I can see why they would want him to do so. We should have been taking an initial step toward increased development of synthetic fuels a long time ago.

Q. So, what is the real distinction between what the majority leader's amendment does and my amendment? The difference is a real one.

A. The majority leader's amendment would have us take the \$3 billion to pay for the program either from "general funds of the Treasury or from any fund hereafter established." What does he intend? My reading of the amendment tells me that the American people will be asked to pay the additional \$3 billion if this Congress fails to set up an energy trust fund from the moneys collected from the windfall profits tax.

If we are going to tax the oil companies, the additional revenues from those taxes must be used, in my judgment, in the production of new energy.

We ought not to leave the administration the option of robbing that trust fund for whatever whim stirs them at any given moment. We should not abandon our commitment to long-range fiscal responsibility. We can do more to meet our energy needs and have our economy stabilized, if we adhere to the principle involved in establishing the energy trust fund in the first place, if one is to be established—and I am assuming, looking ahead another 48 hours, that we probably are going to take that route. Production of more fuel is what we need, and that supposedly is the purpose of this bill. That must and should be the purpose of the anticipated trust fund as well.

It has been reported in the press that the Speaker wants to use such a trust fund, if established, not solely for the production of energy, but more as a general fund to solve all of our social ills—aid to the poor, rehabilitation, and the like. This is exactly what that trust fund ought not be used for. The fund supposedly is being used to help solve our energy problem, and we ought to stick to that. I do not believe that this House would want to tax the oil companies and then turn around and hit the taxpayers up for more money for a synthetic fuels program. The two have to operate in concert with one another.

I believe that this House should go on record as to what is to be done with any taxes collected from the oil companies by way of windfall profits. We should tell the American people that we will use these taxes to produce more energy.

Mr. ASHLEY. Mr. Chairman, will the gentleman yield?

Mr. MICHEL. I yield to the gentleman from Ohio.

Mr. ASHLEY. Mr. Chairman, I appreciate the gentleman yielding to me. I think he may have a point. I am not sure this is the juncture at which we want to address that particular issue he is raising. We are going to have the Ways and Means bill before us in a matter of several days. We really have not entered into any kind of discussion with respect to the proceeds from the tax on oil, as has been proposed and worked on by the Committee on Ways and Means.

So, I just think that what the gentleman is suggesting, if I understand his amendment correctly, the cost of the measure before us, the synthetic fuel proposal, should be funded entirely from the trust fund, is one that is premature. It is not as if we are not going to have an opportunity to decide that bill. This is not the arena; this is not the time, it seems to me, to decide that.

Mr. MICHEL. I think it is very appropriate to raise this issue at this time. We are going to be talking about it in another 48 hours. I do not think we can divorce the windfall profits tax discussion from the purposes of this bill. I would not have introduced the substitute had the majority leader not introduced his amendment in the first place.

I thought the bill the committee was proposing first was reasonable and rational, but when we begin to quadrupling the productions levels all of a sudden, then it raises in my mind the question of how quickly we are seeking to plunge into this thing without knowing where these enormous amounts of revenues are going to come from. The majority leader talks about 10 years down the road, and if a trust fund is set up, there are going to be enough revenues generated to more than cover what we are talking about in this bill.

The CHAIRMAN. The time of the gentleman from Illinois has expired.

(At the request of Mr. Rousselot and by unanimous consent, Mr. Michel was allowed to proceed for 4 additional minutes.)

Mr. ROUSSELOT. Mr. Chairman, will the gentleman yield?

Mr. MICHEL. I yield the gentleman the additional time.

Mr. ROUSSELOT. So, what the gentleman is doing is assuring that the funds for these synthetic fuel projects would come out of the potential tax revenues and would not come out of the general tax fund?

Mr. MICHEL. That is my intent and purpose, yes.

Mr. ROUSSELOT. Well, I think the gentleman is to be commended for offering this funding procedure, because I think that this would be an additional guarantee that the funding is not going to be exempted from the general treasury, and at least the revenues for it would come direct from fuel production taxes. I am not going to support the so-called windfall profit tax, as the gentleman knows. I did not vote for it in the Committee on Ways and Means, but at least we would be assured that the money would be plowed back into new fuel sources. These tax revenues would be plowed back in what the committee feels is an essential area of production.

Mr. MICHEL. That is exactly my intent and purpose.

Mr. ROUSSELOT. And it would not come out of general revenues. I think that is a more appropriate approach to the funding of the synthetic fuel program.

Mr. MCKINNEY. Mr. Chairman, will the gentleman yield?

Mr. MICHEL. I yield to the gentleman from Connecticut.

Mr. MCKINNEY. Mr. Chairman, I could not agree more with what my leader wants to do, which is to take the money for this bill out of "windfall profits" tax if there ever is a windfall profits tax. What, however, would happen when the gentleman's amendment is passed and there is no windfall profits tax? I have got to tell the gentleman that although I have been around here for 10 years, never in my life would I give that tax one possible chance in the other body, and I am not so sure that it is even going to fly in this one. So, what then are we doing? Is there any way the gentleman could amend his amendment to say that if there is a windfall profits tax the money could come from that fund.

Mr. MICHEL. That could be done, yes. I wanted to at least raise the issue. We must coordinate our energy programs.

Mr. McKINNEY. Would the gentleman go along with this plan:

Would the gentleman go to the Rules Committee and ask that an amendment of his be given priority, so that we state in the windfall profits tax debate that that money first go to this particular purpose?

Mr. MICHEL. In the discussions heretofore that have taken place with respect to the kind of rule that would be granted on the windfall profits tax bill, I think that might be an impracticable kind of request that would not be honored by the majority members serving on that committee. If my intelligence is correct, the die is being cast for several amendments, but not for my type of approach.

Mr. McKINNEY. I find myself in a terrible predicament.

Mr. MICHEL. I want to make clear that had we not had this amendment offered by the majority leader, I would not have thought in terms of this substitute. I was willing to go along with what the committee had in mind, by whatever financing mechanism they felt was appropriate.

Mr. McKINNEY. I would suggest again to my leader that I would not have gone along with this original amendment either until we did a very strange thing in our committee. We had testimony after the bill had been reported out by the full committee by a vote of 39 to 1. We had further testimony from the Defense Department in secret session which made me feel that I should support Mr. Wright's amendment. I am so supporting it, but I like the thrust of the minority whip's amendment. I like what it is saying and I think that should happen, but if we did pass his amendment and the other body, as I presume, will not pass the windfall profits tax—at least I do not expect to be alive to see it—then we will have no windfall profits tax bill.

The CHAIRMAN. The time of the gentleman from Illinois has again expired.

(At the request of Mr. McKinney and by unanimous consent, Mr. Michel was allowed to proceed for 3 additional minutes.)

Mr. MICHEL. We cannot predict with any degree of certainty that the other body will follow suit and do what we will probably do in the House.

Mr. McKINNEY. Is it not true, though, that the gentleman can ascertain with more certainty what the other body will do on energy taxes than on almost anything else that they do?

Mr. MICHEL. Yes.

Mr. McKINNEY. That is why I would be constrained to oppose this, unless the gentleman could change his amendment. I am sorry, but I personally could not go along with it.

Mr. JEFFORDS. Mr. Chairman, will the gentleman yield?

Mr. MICHEL. I yield to the gentleman from Vermont.

Mr. JEFFORDS. Mr. Chairman, I want to commend the gentleman for the amendment. I think it has pointed out an important thing. Right now, we are heading down a road with the Wright amendment which leads us to a totally different concept than that in the Moorhead of Pennsylvania bill. It is Federal purchase and creation of a product which will then be resold to the public and is using the taxpayers' dollars in enormous sums to accomplish that, unless there is a dramatic change in present price differentials. It seems to me that we are being panicked and going down a path very prematurely. The gentleman

brought that out by pointing out that we do not know yet what is going to happen with the windfall profits tax. It seems to me that to vote for the Wright amendment is premature. There are other options that ought to be examined, one of which the gentleman has brought up. I commend him for his amendment.

Mr. MICHEL. I thank the gentleman. The gentleman also has an amendment that has a little different twist, and frankly has a great deal of merit because it would give to the private sector a different option, without a Federal subsidy, or very little. I would have to commend him for at least proposing in another alternative way how we can get synthetic fuels.

Mr. JEFFORDS. I thank the gentleman. That is true, and there are other options. We are talking about 10 years down the way here. We have got weeks and months to come up with something, and yet, we rush down one path with a tremendous sum of money that is going to place a multibillion dollar burden on the taxpayers if this Wright amendment is adopted.

Mr. MICHEL. I thank the gentleman.

Mr. MOORHEAD of Pennsylvania. Mr. Chairman, I ask unanimous consent that all debate on the Wright Amendment and all amendments thereto close in 5 minutes.

The CHAIRMAN. Is there objection to the request of the gentleman from Pennsylvania?

Mr. BADHAM. Reserving the right to object, we have had two Members, I believe, who have had time and all the rest have been yielded to. Many Members have been waiting patiently for their time, and I think 5 minutes is an unusual limit on time.

Mr. MOORHEAD of Pennsylvania. Mr. Chairman, I see only about five or six Members standing. I ask unanimous consent that all debate on the Wright amendment and all amendments thereto close in 15 minutes.

The CHAIRMAN. Is there objection to the request of the gentleman from Pennsylvania?

Mr. JEFFORDS. Reserving the right to object, the gentleman knows I have a substitute which I think ought to be considered, and I hope there will be the understanding that that gives me about 2 minutes to talk about a relatively important substitute, and I just cannot agree to 15 minutes unless I am sure I am going to have 5 minutes myself in order to be able to explain the substitute.

Mr. MOORHEAD of Pennsylvania. Mr. Chairman, I ask unanimous consent that all debate on the Wright amendment and all amendments thereto close 10 minutes after the gentleman has had an opportunity to offer his substitute amendment.

The CHAIRMAN. The Chair would advise the gentleman that in the event the amendment offered as a substitute by the gentleman from Illinois (Mr. Michel) were adopted, no other substitute would be in order and the request would be unworkable.

Mr. MOORHEAD of Pennsylvania. Mr. Chairman, I ask unanimous consent that all debate on the Michel substitute amendment close in 5 minutes.

The CHAIRMAN. Is there objection to the request of the gentleman from Pennsylvania?

There was no objection.

The CHAIRMAN. Members standing at the time the unanimous-consent request was agreed to will be recognized for 30 seconds each.

The Chair recognizes the gentleman from New York (Mr. Ottinger). (By unanimous consent, Mr. Dingell yielded his time to Mr. Ottinger.)

Mr. OTTINGER. Mr. Chairman, I rise in support of the Wright amendment and in opposition to the Michel substitute. I support the Wright amendment, because I believe, as he has stated and demonstrated here with charts, that we have a critical need for liquid fuels—a very critical need. I also got the defense briefing that was referred to by the gentleman from Connecticut (Mr. McKinney). I have suffered with the energy situation, and I know we have that critical need. My whole effort in this process is to make sure that we get the production—the more production we can get, the better—and to see that we will have reasonable safeguards for the taxpayer in the process of getting it. Therefore, I think that the Wright amendment is a good one. The Michel substitute amendment, however, would exhaust the trust fund and not leave any funds at all for critical needs of people who are going to have to pay much higher oil and fuel bills this winter and who cannot afford to do it. That seems to me insidious.

Also, as the gentleman from Connecticut has pointed out, if there is no trust fund, there will be no synthetic fuels program. For these reasons the Michel amendment should be rejected.

The CHAIRMAN. The time of the gentleman from New York (Mr. Ottinger) has expired.

The Chair recognizes the gentleman from California (Mr. Badham).

(By unanimous consent, Mr. Jeffords and Mr. Rousselot yielded their time to Mr. Badham.)

Mr. BADHAM. Mr. Chairman, I think that the gentleman from Texas (Mr. Wright) is on the right track in saying that we need more energy, be it from synthetic fuels or any other kind of fuels that we have that we control in this country. Reprocessing is sitting on about the equivalent of 240 billion barrels of fuel. If we had the nuclear powerplants that would have been on line by 1978 had the permit process not bogged down, we would have saved another additional equivalent billion barrels of oil per year.

In California alone if we have proper decontrol, and allowance for tertiary recovery of known reserves, we have the equivalent of 13 years of imported oil for the whole United States. The answer is to have decontrol and to not tax those people disproportionately to others in the United States of America that can give the only avenue for competition to OPEC oil. We can allow the development of sufficient domestic resources prior to eventually will have in order to keep the United States in fuel rather than depending on other people.

(Mr. Badham asked and was given permission to revise and extend his remarks.)

The CHAIRMAN. The time of the gentleman from California (Mr. Badham) has expired.

The Chair recognizes the gentleman from Hawaii (Mr. Heftel).

[Mr. Heftel addressed the Committee. His remarks will appear hereafter in the Extensions of Remarks.]

The CHAIRMAN. The time of the gentleman from Hawaii (Mr. Heftel) has expired.

The Chair recognizes the gentleman from Minnesota (Mr. Vento).

Mr. VENTO. Mr. Chairman, I rise in opposition to the Michel substitute amendment. I think that this does put the cart before the horse. It makes the development of synthetic fuel contingent upon an unknown commodity—what the amount of a trust fund might be, whether it might be a derivative of a windfall profits tax, whatever that is. I think what we need here is clarity in terms of the truth and development. This synthetic development is a priority that should go forward not based on the probability of an unknown tax revenue as to how much it might be and what the needs of this particular program in the end might be. I think this is the sort of thing that has caused the backlog by this Congress and synfuel ought to go forward on its own merits. The trust fund, if it is created, may have different priorities from those proposed by the amendment. I urge my colleagues to defeat the Michel substitute amendment.

The CHAIRMAN. The time of the gentleman from Minnesota (Mr. Vento) has expired.

The Chair recognizes the gentleman from Illinois (Mr. Michel).

Mr. MICHEL. Mr. Chairman, just in summary, as I said, I would not have introduced the amendment had it not been for the majority leader's intending to quadruple what the need was originally going to be here. That causes me to have a real reservation about how fast we are moving and by what means we are going to eventually have to finance this multibillion-dollar operation. It would be much better now, even though 48 hours ahead of time, to get some kind of sentiment for how Members of Congress would like to have that trust fund, if there is to be one established, used to produce more energy. And if the Senate decides not to take that route, they can always modify this legislation in the conference on the disagreeing votes between the two Houses.

The CHAIRMAN. The time of the gentleman from Illinois (Mr. Michel) has expired.

The Chair recognizes the gentleman from Texas (Mr. Wright).

(By unanimous consent, Mr. Moorhead of Pennsylvania yielded his time to Mr. Wright.)

Mr. WRIGHT. I thank the Chairman.

I appreciate what the distinguished minority whip, the gentleman from Illinois (Mr. Michel), seeks to do. I just think it is untimely. We do not have any windfall profits tax as of now. We do not have any trust fund created as of now. When the proper time comes, I would be happy to join the gentleman in trying to see that this kind of activity is financed out of that trust fund, but I just think that time is not here.

I would appreciate a "no" vote on the amendment of the gentleman from Illinois (Mr. Michel) and an "aye" vote on the amendment itself, which allows that eventuality to occur if in the wisdom of the Congress it should be done when we create and have before us a trust fund.

Mr. MICHEL. Mr. Chairman, would the majority leader yield for a brief question?

Mr. WRIGHT. I yield to the gentleman from Illinois.

Mr. MICHEL. Did I understand the gentleman to say when the appropriate time arrives and a windfall profits tax is enacted with a trust fund established, the gentleman then would give support to the kind of thing we are talking about here?

Mr. WRIGHT. I think this is one of the things that should be financed out of the trust fund, but not the only thing.

Mr. MICHEL. I thank the gentleman for his response.

The CHAIRMAN. All time has expired.

The question is on the amendments offered by the gentleman from Illinois (Mr. Michel) as a substitute for the amendments offered by the gentleman from Texas (Mr. Wright).

The question was taken; and on a division (demanded by Mr. Michel), there were—ayes 33, noes 55.

So the amendments offered as a substitute for the amendments were rejected.

**AMENDMENTS OFFERED BY MR. JEFFORDS AS A SUBSTITUTE FOR THE
AMENDMENTS OFFERED BY MR. WRIGHT**

Mr. JEFFORDS. Mr. Chairman, I offer amendments as a substitute for the amendments.

The Clerk read as follows:

Amendments offered by Mr. Jeffords as a substitute for the amendments offered by Mr. Wright: Page 5, line 8, add new subsections "b" through "(f)".

"(b) Of the total quantity of gasoline and diesel fuel sold in commerce during any of the following years by any refiner (including sales to the Federal Government), replacement fuel shall constitute the minimum percentage determined in accordance with the following table:

In the calendar year:	The minimum percentage of that volume which replacement fuel constitutes, shall be—
1982, 1983, 1984, 1985, and 1986----	Determined by the Secretary under subsection (b) of this section.
1987, 1988, and 1989-----	10 percent.
1992 and each year thereafter-----	The percentage determined feasible under section 5(a)(4).

(c) Not later than July 1, 1981, the Secretary shall prescribe, by rule, the minimum percentage replacement fuel, by volume, required to be contained in the total quantity of gasoline and diesel fuel sold each year in commerce in the United States in calendar years 1982 through 1986 by any refiner for use as a motor fuel. Such percentage shall apply to each refiner, and shall be set for each such calendar year at a level which the Secretary determines—

(1) is technically and economically feasible, and

(2) will result in steady progress toward meeting the requirements under this section for calendar year 1987.

(d) Each refiner shall report annually to the Secretary the percentage replacement fuel by volume contained on the average in the total quantity of gasoline and diesel fuel for use as a motor fuel that refiner sold during the preceding calendar year.

(e) The requirements under subsection (a) on any refiner may be satisfied directly with replacement fuel and gasoline and diesel fuel refined and blended by the refiner or indirectly pursuant to any contract or other arrangement with replacement fuel and gasoline and diesel fuel refined or blended by others.

(f) The Secretary may, on the application of any person, make adjustments to reduce the minimum percentage requirement as it applies to that person, but only if and to the extent that such adjustments are consistent with the purposes of this Act.

Page 5, line 8, strike out "(b)" and insert in lieu thereof "g". Renumber the following subsections accordingly.

Mr. MOORHEAD of Pennsylvania. Mr. Chairman, I reserve a point of order on the amendments offered by the gentleman from Vermont (Mr. Jeffords).

The CHAIRMAN. The gentleman from Pennsylvania reserves a point of order.

Mr. JEFFORDS (during the reading). Mr. Chairman, I ask unanimous consent that the amendment be considered as read and printed in the Record.

(Mr. Jeffords asked and was given permission to revise and extend his remarks.)

Mr. JEFFORDS. Mr. Chairman, I support the Moorhead bill. I believe that the concept therein is a good one. To the extent that the Federal Government has needs and demands for oil, it ought to act to develop the synthetic fuels industry to provide those needs.

However, Mr. Chairman, the Wright amendment goes way beyond that. It says that not only will we create a market to purchase fuel for Federal use, to fulfill the immediate needs of the Federal Government. The Wright amendment will go beyond that, we will quadruple that amount. The Federal Government would purchase fuel, most likely from an oil company, and then resell it to the oil company to sell it to the public at taxpayers' expense.

That may be the best concept—I doubt it—but there are other ones that should be considered. There are at least a few that I know of.

The gentleman from Kentucky (Mr. Perkins), the chairman of the Committee on Education and Labor, has another concept. I have a concept. We have already talked about one for purposes of the windfall profits tax.

Before we go down this road which leads us in the direction of a total Federal commitment to purchase all of the synfuels and then to resell them at whatever price it requires to be resold to the market, I think we should examine other alternatives. It could save consumers and taxpayers billions.

I would invite your attention to one which I have proposed and which 103 other Members of this body have cosponsored. It takes a different approach. What this concept does, instead of saying the Federal Government ought to purchase and resell, it says we ought to put the bead on the oil companies, the refiners. We ought to say that, "By 1987 10 percent of what you sell must come from something other than oil that comes out of the ground. You can mix it yourself or do it by contract to have someone else do it." It could be alcohol from garbage, it could be alcohol from corn, it could be synthetic oil from coal, it could be produced from shale, it could come from tar sands. This says, "Let us put the free enterprise system to work, let us find the best, the cheapest way to supply what you need to do to get our country on the road to energy independence.

This would provide somewhere around 1 million barrels a day of replacement fuels. It would do it not at the taxpayers' cost, not by Federal purchase, but by allowing the free enterprise system to develop the best way to find the answer. It requires the oil refiners to buy the cheapest answer to meet the law so that on an average 10 percent of their product is from a replacement fuel. If they do not, they are fined. I would like to point out that this idea is new and gaining support as I have mentioned, the concept already has 103 cosponsors. Time magazine referred to it as the idea of the week, 2 weeks ago, in its June 18 issue.

Quoting from Time, it says:

It would get the alternative energy industry off the ground, unendangered by politics or paperwork. Also it would cost the taxpayers nothing.

This is an idea which should be considered but if we go forward in this path we may preclude consideration of this, or other alternatives.

Also, I would like to point out that such a concept, by putting the bead on the oil companies and mandating a market, is similar to what we did to the car companies by mandating they have miles-per-gallon requirements. The concept is as flexible as is possible. It would also complement the original concepts of this bill. It will also complement other concepts which may be helpful, whether it be tax credits, or wind-fall taxes, or practically anything else.

This is an easy way, a simple way. The experts who testified before our subcommittee on this issue said it was the best idea they had seen, the best way to get America moving on energy independence and with less complications than this bill would incorporate if you go through with the Wright amendment.

Mr. KELLY. Mr. Chairman, would the gentleman yield?

Mr. JEFFORDS. I yield to the gentleman from Florida.

Mr. KELLY. I thank the gentleman for yielding.

The 500,000 barrels a day figure was established as a result of comparing it to the defense needs and this is the Defense Production Act. So I think the gentleman in the well is quite correct. This is a major departure and a very limiting departure, because we are stuck with what is in this bill. The bill was hastily prepared but I think is basically a good concept. The broad production of synthetic fuels in the United States should not be limited to this one concept. There is too much danger the Government may wind up producing it and especially as the amount of production provided for in the bill increases. I think the gentleman's argument is well taken.

Mr. JEFFORDS. I thank the gentleman, Mr. Chairman, and I certainly agree with what the gentleman has said.

In summary, I think the question comes down to whether you want to take the Wright approach, which is the wrong approach, and that is to say that the Federal Government ought to be the one that buys it all, most likely from an oil company, and sells it back to you probably through an oil company, at whatever cost the Federal Government got stuck for, or on the other hand you ought to support my concept which puts the bead on the oil companies and says, "You are the ones who ought to go out and develop the market, so that the necessary capital formation will be created. Let the free enterprise system, the American way, find the easiest, the simplest, the least costly way of doing it whether it be alcohol in Nebraska or whether it be synthetic oil from coal in Pennsylvania. Let all options compete to find the cheapest way. Let the American consumer get off with the lowest price and allow the American taxpayer off altogether."

I urge you to put the pressure on the oil companies, not the taxpayers.

POINT OF ORDER

The CHAIRMAN. Does the gentleman from Pennsylvania insist upon his point of order?

Mr. MOORHEAD of Pennsylvania. Mr. Chairman, I do.

The CHAIRMAN. The gentleman will state it.

Mr. MOORHEAD of Pennsylvania. Mr. Chairman, as much as I support the concept of the substitute of the gentleman from Vermont—I believe I am a cosponsor of this bill—I do not believe it is a proper part of this legislation in that it is not germane.

First, it is not germane to the Wright amendment which is a production amendment and a defense production amendment.

This amendment is a regulatory amendment dealing with “replacement fuels sold in commerce.” It is not a production bill.

The same language is contained further down. It regulates the amount of synthetic fuel and diesel fuel sold each year in commerce in the United States and the guts of the bill are regulatory, rather than production aimed. Therefore, this amendment is not germane to the Wright amendment or to the bill.

The CHAIRMAN. Does the gentleman from Vermont wish to be heard on the point of order?

Mr. JEFFORDS. Mr. Chairman, it seems to me that once the Wright amendment has been agreed to as being part of the bill, then a substitute which goes well beyond the original concept of the bill is also germane and in order.

I would point out that the Wright amendment, as I have said before, takes us totally out of just the needs for the Federal Government and goes out into the area of sales in commerce. I think because the Wright amendment is being considered as germane, the substitute should also.

The CHAIRMAN. The Chair is prepared to rule.

The amendment offered by the gentleman from Texas goes to goals for defense production of synthetic fuels and to the funds to achieve those goals. The amendment offered by the gentleman from Vermont, for reasons stated by the gentleman from Pennsylvania, is not solely related to defense production but rather goes to all diesel fuel and gasoline sold in commerce whether defense related or not and does not speak solely to the production of synthetic fuels for defense purposes. It is therefore beyond the scope of the Wright amendment and is not germane, and the Chair is also constrained to point out the subject matter of the amendment offered by the gentleman from Vermont does not lie within the jurisdiction of the Committee on Banking, Finance and Urban Affairs.

For the foregoing reasons the Chair sustains the point of order.

The question is on the amendments offered by the gentleman from Texas (Mr. Wright).

The amendments were agreed to.

AMENDMENTS OFFERED BY MR. MOORHEAD OF PENNSYLVANIA

Mr. MOORHEAD of Pennsylvania. Mr. Chairman, I offer amendments. The Clerk read as follows:

Amendments offered by Mr. Moorhead of Pennsylvania: Page 4, line 14, strike out “1995” and insert in lieu thereof “2015”.

Page 5, line 19, insert “regarding the procurement of goods or services by the Federal Government, except as provided in section 717(a) of this Act,” after “existing law”.

Page 7, line 7, insert “(A)” after “(4)”.

Page 7, after line 12, insert the following:

“(B) Contracts for the purchase or commitment to purchase synthetic fuels or synthetic chemical feedstocks may be entered into only for synthetic fuels or synthetic chemical feedstocks which are produced in facilities which are located in the United States.

"(C) For purposes of this paragraph, the term 'United States' means the several States, the District of Columbia, the Commonwealth of Puerto Rico, Guam, the Virgin Islands, the Northern Mariana Islands, the Trust Territory of the Pacific Islands, or any other territory or possession of the United States.

Page 10, line 6, strike out the quotation marks and the period at the end thereof.

Page 10, after line 6, insert the following :

"(J) Nothing in this section shall be construed to authorize the President to institute, without the approval of the Congress, a program for the rationing of gasoline among classes of end-users."

(Mr. Moorhead of Pennsylvania asked and was given permission to revise and extend his remarks.)

Mr. MOORHEAD of Pennsylvania. Mr. Chairman, this amendment does several things. The first one is to strike out the year 1995 as the final time for payments under the program and inserts in lieu thereof the year 2015.

This extends the period of purchases that could be made and is made necessary by the adoption of the Wright amendment.

Concern has been expressed that the language in the bill without regard to existing law could cover a multitude of existing laws, which was not intended by the committee and I do not really think it would be so construed; but at the suggestion of the gentleman from Michigan and the gentleman from New York, this amendment limits the exemption to procurement laws and provides also that no moneys can be paid except out of moneys appropriated by prior appropriation laws.

The amendment also provides, again which I really did not think was necessary, but to make it absolutely clear, that the contracts for purchase may be entered into only for synthetic fuels or feedstocks which are produced in facilities which are located in the United States. This was suggested to me, among others, by the gentlewoman from Ohio (Ms. Oakar), and I think it is an amendment that can easily be agreed to.

Finally, earlier in the debate reference was made to the fact that somehow this bill could be construed to permit gasoline rationing. I did not think it could be so construed, but the gentleman from Michigan and the gentleman from New York were concerned about this.

Now, I personally am in favor of rationing. I think it is the way we should go, but I do not think it should be in this particular legislation, so to eliminate any shadow of a doubt I included this in the amendment. I believe these amendments are more technical than substantive, so I would hope they would be adopted.

Mr. OTTINGER. Mr. Chairman, will the gentleman yield?

Mr. MOORHEAD of Pennsylvania. I yield to the gentleman from New York.

Mr. OTTINGER. Mr. Chairman, is it my understanding quite clearly then that there is no attempt in this legislation to repeal or otherwise waive laws with respect to labor law protections or small business set-asides or environmental laws or any other laws?

Mr. MOORHEAD of Pennsylvania. That is certainly my understanding of the intention of the committee and it is certainly my intention. The gentleman is correct.

Mr. OTTINGER. Mr. Chairman, I thank the gentleman. I think the amendments are very constructive.

Mr. DINGELL. Mr. Chairman, will the gentleman from Pennsylvania yield?

Mr. MOORHEAD of Pennsylvania. I would be glad to yield to my friend, the gentleman from Michigan.

Mr. DINGELL. Mr. Chairman, the gentleman puts the amendment relating to rationing at page 10. Now, this only deals with the title, as I read the language of the amendment that the gentleman has suggested, it says:

Nothing in this section shall be construed to authorize the President to institute, without the approval of the Congress, a program for the rationing of gasoline among classes of end-users.

Now, that applies only to title III of the act. It does not apply to the balance of the Defense Production Act, particularly title I.

Now, that being so, the language of the amendment deals only with the fact that the President cannot institute rationing under title II, not under title I of the Defense Production Act to which this is an amendment.

Now, rationing comes up in title I of the act. Section 3 relates to loan guarantees and purchase price.

The only way that the amendment of the gentleman can be made to be effective is to say nothing in the "act," not nothing in the "section," will be construed, and so forth.

Now, if the gentleman really wants us to have an amendment which does not permit rationing without prior action by the Congress, the gentleman has got to amend the amendment in the fashion that I have indicated.

Mr. MOORHEAD of Pennsylvania. Mr. Chairman, would the gentleman yield?

Mr. DINGELL. Well, the gentleman has the floor.

Mr. MOORHEAD of Pennsylvania. Well, then, I would ask unanimous consent that the amendment I have offered be changed to in place of the word "section", the word "act", "Nothing in this act."

The CHAIRMAN. Is there objection to the request of the gentleman from Pennsylvania?

There was no objection.

The CHAIRMAN. The Clerk will report the modification to the amendment.

The Clerk read as follows:

Page 10, after line 6, insert the following:

"(j) Nothing in this Act shall be construed to authorize the President to institute, without the approval of the Congress, a program for the rationing of gasoline among classes of end-users."

Mr. MOORHEAD of Pennsylvania, Mr. Chairman, I want to take this opportunity to say that I have enjoyed working with the gentleman from Michigan.

The CHAIRMAN. The time of the gentleman from Pennsylvania (Mr. Moorhead) has expired.

(By unanimous consent, Mr. Moorhead of Pennsylvania was allowed to proceed for 1 additional minute.)

Mr. MOORHEAD of Pennsylvania. Mr. Chairman, I think this colloquy shows that the gentleman and I can work together to improve this legislation.

I thank the gentleman for his contribution.

The CHAIRMAN. The time of the gentleman from Pennsylvania has again expired.

(At the request of Mr. Dingell, and by unanimous consent, Mr. Moorhead of Pennsylvania was allowed to proceed for 3 additional minutes.)

Mr. DINGELL. Mr. Chairman, if the gentleman will yield further, I express high regard also for the gentleman from Pennsylvania and tell the gentleman how delighted I am to work with him. I am particularly pleased that he has adopted several of the amendments that I and my colleagues have offered. In view of that splendid comity, perhaps if the gentleman would yield further, the gentleman would tell me what are the contracting statutes to which we refer at page 5 in the amendment at lines 17 through 21; actually, 17 through 19.

Does it include the Antideficiency Act? We have a whole abundance of statutes relating to GAO audits, relating to overspending of appropriations, small business set-asides, advertising, and so forth.

Mr. MOORHEAD of Pennsylvania. Mr. Chairman, if I can reclaim my time to say that this bill does not change the GAO audits.

Now, we do have a problem, that this purchase arrangement which in previous years I believe the gentleman supported the concept of it, is a little bit difficult to work into normal procurement procedures, because we are asking for bids in dollars for a barrel of oil substitutes. It is not quite the same as buying automobiles or paperclips, so that I think to make this thing work we cannot be restrained by all of the restrictions that are in existing procurement legislation.

Mr. DINGELL. Well, let us deal with some. These is the Antideficiency Act.

Mr. MOORHEAD of Pennsylvania. The what?

Mr. DINGELL. The Antideficiency Act, that says you cannot spend more money than has been appropriated. That is essentially a contracting act. Does this authorize violation of the Antideficiency Act?

Mr. MOORHEAD of Pennsylvania. No. It provides, if I can find that amendment again.

Mr. DINGELL. The gentleman has reserved the authority to subject the President to disregard act.

Mr. MOORHEAD of Pennsylvania. Except as provided in section 717 (a), which requires prior appropriations.

Mr. DINGELL. But it says, "Without regard to limitations in existing law."

Mr. MOORHEAD of Pennsylvania. Except as provided in section 1717 (a) which requires prior appropriations.

Mr. DINGELL. Well, we have matters of small business set-asides. Is that one of those statutes that does not limit the action of the President?

Mr. MOORHEAD of Pennsylvania. What we do in this bill is to try to promote production, and one of the ways is through direct loans and loan guarantees in which small business would be the beneficiary.

Mr. DINGELL. Is the answer, then, yes, that it does set aside those two statutes, including the Antideficiency Act?

Mr. MOORHEAD of Pennsylvania. The answer is no in one case, and the answer to the other sections in the other case is that it does.

Mr. DINGELL. The answer is yes. What other statutes relating to this are there?

The CHAIRMAN. The time of the gentleman from Pennsylvania (Mr. Moorhead) has again expired.

Mr. MCKINNEY. Mr. Chairman, I move to strike the requisite number of words.

(Mr. McKinney asked and was given permission to revise and extend his remarks.)

Mr. McKINNEY. Mr. Chairman, I would just like to state that I concur with the remarks of the chairman of the subcommittee and say that I accept these amendments. I think they are essentially perfecting in nature, and I think they should be in the bill.

I want to congratulate my friend, the gentlewoman from Ohio (Ms. Oakar), a member of the committee, for putting in her amendment. I would say, though, that there has been a lot of discussion about gas rationing, and I am not going to let this go by any longer.

If everybody in this House is so afraid that this bill is going to give the President the right to ration gas, which it is not and which we have now just taken care of, let us get this issue on the floor again and let us have a vote.

It is wonderful to pull this ogre out of the sky and talk about gas rationing. My people want gas rationing. Anything would be better than the confusion, the doubt, the stupidity, and whatever else they have got now.

Mr. DINGELL. Mr. Chairman, will the gentleman yield?

Mr. McKINNEY. I will as soon as I finish this point.

Mr. Chairman, if it is in the gentleman's committee, I would recommend that he bring it forth the day after tomorrow. My people want to know whether they have 10 gallons, 15 gallons, or 20 gallons a week. They do not want to sit in constant terror of the fact that they are not going to be able to do anything, that they are not going to be able to get to work.

If we give the American people a chance to plan, they will plan. If we tell my wife or any other housewife for that matter that they have so much gas, they will set their lives around it. But if we tell them we do not know whether they will have enough gas to do anything, we do not know whether their husband will have enough gas to get to work, or whether they can take a weekend, they are helpless and they do not know how to plan.

We have a Secretary of the Department of Energy who says one day, "The gas lines will stop," and then the next day he says, "The gas lines will still be with us." We have seen that the gas lines have ceased in California.

Mr. DINGELL. Mr. Chairman, will the gentleman yield?

Mr. McKINNEY. I will yield to the gentleman in just a moment.

I just say that we should bring that rationing vote on the floor, and I will vote for it any time. But do not try to say that we have a rationing plan here and that there is anything about rationing in this bill, because there is not. This is the Defense Production Act, and God knows, just under that term the President should have almost any right, as he did in World War II, to get this country to react.

Mr. DINGELL. Mr. Chairman, will the gentleman yield?

Mr. McKINNEY. I yield to the gentleman from Michigan.

Mr. DINGELL. Mr. Chairman, I thank the gentleman for yielding.

I handled the President's rationing proposal a few weeks ago, as the gentleman voted for that proposal. But I am sure that he recalls there were only seven votes on his side of the aisle in favor of rationing.

Mr. McKINNEY. I was one of the "ugly seven."

■ Mr. DINGELL. Mr. Chairman, I have no objection to dealing with the rationing matter again. I will tell the gentleman there will be a proposal on the floor dealing with rationing as soon as I can craft it and report it out of committee.

■ Mr. CORRADA. Mr. Chairman, will the gentleman yield?

■ Mr. McKINNEY. I would be delighted to yield to the gentleman from Puerto Rico.

■ Mr. CORRADA. Mr. Chairman, I thank the gentleman for yielding.

■ Mr. Chairman, I would like to state that I want to commend the gentleman from Pennsylvania (Mr. Moorhead), the gentlewoman from Ohio (Ms. Oakar), and the gentleman on the minority side for agreeing to include Puerto Rico and other U.S. possessions in this bill.

i We contribute in Puerto Rico \$300 million barrels of oil which contribute substantially to the figure of 802 million barrels imported today in our Nation. The inclusion of Puerto Rico and other U.S. territories and possessions in the bill is something that ought to be commended and supported by all the Members.

Mr. WIRTH. Mr. Chairman, will the gentleman yield?

Mr. McKINNEY. I yield to the gentleman from Colorado.

Mr. WIRTH. Mr. Chairman, I just want to commend the gentleman on what I thought was a very reasonable statement on the needs this institution has and the other body for developing a mechanism for managing this shortage. I think the kind of fortitude the gentleman exhibits ought to be reflected, hopefully soon, by a majority of the House.

Mr. McKINNEY. Mr. Chairman, I appreciate the gentleman's statement.

I simply say again, Mr. Chairman, as a Member of this body, supposedly one of the greatest deliberative bodies in the world, one that deliberates and writes laws for one of the greatest nations in the world, that we should not stand here and watch a nation disintegrate into chaos, with confusion and no control over its economy, no control over its energy, no control over its defense, and no control over its foreign policy. We obfuscate the issues and look for all these other reasons, and we find everything wrong.

But I will say to my colleagues I think we should take a step forward and consider the bill of the gentleman from Vermont (Mr. Jeffords) or the bill of the gentleman from Michigan (Mr. Dingell), or let us get a rationing bill. Let us do something.

Mr. Chairman, I very seldom talk with that much anger, but that is the anger I feel.

Mr. Chairman, I yield back to the balance of my time.

Ms. OAKAR. Mr. Chairman, I move to strike the requisite number of words, and I rise in support of the amendments.

Mr. MOORHEAD of Pennsylvania. Mr. Chairman, will the gentlewoman yield?

Ms. OAKAR. I yield to the gentleman from Pennsylvania.

Mr. MOORHEAD of Pennsylvania. Mr. Chairman, I ask unanimous consent that all debate on these amendments and all amendments thereto close after the gentlewoman from Ohio (Ms. Oakar) has completed her presentation.

The CHAIRMAN. Is there objection to the request of the gentleman from Pennsylvania?

There was no objection.

The CHAIRMAN. The Chair recognizes the gentlewoman from Ohio (Ms. Oakar).

(Ms. Oakar asked and was given permission to revise and extend her remarks.)

Ms. OAKAR. Mr. Chairman, as our distinguished Speaker said in his letter to us today, this bill "is one of the most important initiatives of this Congress." I wholeheartedly agree. The current oil crisis, as it exists today, threatens and plays havoc with our national security. I am confident that our nation will find the resources, technology, and capital to overcome our dependence on foreign oil. The legislation before us provides that impetus. The bill identifies national energy resources as one of the critical and strategic materials which are vital to our national defense; it recognizes that our present heavy reliance on imported petroleum from foreign governments places our national security in a very precarious situation; and implements programs for the development of synthetic fuels as a substitute for our current heavy reliance on foreign import of this critical and strategic material—oil.

Mr. Chairman, during our hearings, several witnesses attested to the fact that our current reliance on imported petroleum threatened our national security. Underscoring this deep concern were the views of the Department of Treasury in a memorandum dated March 14, 1979 to President Carter from Secretary Blumenthal. The memorandum was accompanied by a detailed 21-page report concluding that the threat to national security and the economic strength of the nation from the growing dependence on foreign oil was more serious than ever.

Mr. Chairman, simply, my amendment is designed to help alleviate that heavy burden to our national security interests by requiring that contracts for the purchase or the commitment to purchase synthetic fuels or chemical feedstocks be entered into only with those companies whose facilities are located in the United States, its territories or possessions.

One of the reasons the term "United States" is all inclusive is obvious. We should not preclude or prohibit the development of synthetic fuels anywhere in the United States, its territories, or possessions where there exists the possibility that a synthetic fuels industry can be developed. I might add, Mr. Speaker, that although I have emphasized the national security aspect of this legislation—it should not go unnoticed that the development of this synthetic fuels industry will create many jobs in the continental United States and in those territories and possessions which so badly need to improve their economies.

Mr. Chairman, never again should the national security interests of our country be placed in a situation where the control of our national security interests are placed with a foreign government or governments whether they be friendly or unfriendly.

It is for these reasons that I urge the adoption of my amendment, which will insure that contracts for the purchase or commitment to purchase synthetic fuels or synthetic chemical feedstocks be produced in facilities located in the United States, its territories or possessions.

This amendment is important then for our national security in-

terests and highlights our concern for the increase in jobs for the American working person.

Mr. VENTO. Mr. Chairman, will the gentlewoman yield?

Ms. OAKAR. I yield to the gentleman from Minnesota.

Mr. VENTO. Mr. Chairman, I want to commend the chairman of the subcommittee for his amendments.

I am concerned about some of the dialog that occurred between the gentleman from Pennsylvania (Mr. Moorhead), the chairman of the subcommittee, and the gentleman from Michigan (Mr. Dingell) with regard to the act.

When the gentleman accepted the amendment which modified this act, he was talking specifically about H.R. 3930; the gentleman is not talking about title I or the priorities of procurement for the Defense Production Act?

Mr. MOORHEAD of Pennsylvania. No, I was talking about this act. I did, in exchange or in colloquy with the gentleman from Texas (Mr. Brooks), say that I expected, to the maximum extent practicable, that the requirements of Government procurement in the law for small business set-asides, minority business set-asides, labor surplus areas, and situations like that would be considered.

Mr. VENTO. Mr. Chairman, I thank the gentleman.

Ms. OAKAR. Mr. Chairman, I yield back the balance of my time.

The CHAIRMAN. All time has expired.

The question is on the amendments offered by the gentleman from Pennsylvania (Mr. Moorhead).

The amendments were agreed to.

Mr. MOORHEAD of Pennsylvania. Mr. Chairman, the hour is getting late, and therefore, I would like to ask unanimous consent on the closing of debate on section 3.

Mr. BROWN of Ohio. Mr. Chairman, I reserve the right to object.

The CHAIRMAN. The Chair will state that the gentleman from Pennsylvania (Mr. Moorhead) has not yet propounded his unanimous consent request.

Mr. MOORHEAD of Pennsylvania. Mr. Chairman, I am just trying to see how many Members are standing.

Mr. Chairman, I ask unanimous consent that all debate on section 3 close at 6:30.

The CHAIRMAN. Is there objection to the request of the gentleman from Pennsylvania?

Mr. KELLY. Mr. Chairman, I object.

The CHAIRMAN. Objection is heard.

Mr. MOORHEAD of Pennsylvania. Mr. Chairman, may I ask, would the gentleman from Florida (Mr. Kelly) accept the hour of 6:40?

Mr. KELLY. Mr. Chairman, I reserve the right to object.

The CHAIRMAN. The gentleman from Pennsylvania (Mr. Moorhead) has the floor.

Mr. KELLY. Mr. Chairman, if the gentleman will yield, I will respond to the gentleman and say that I had some amendments to section 3, and after they are disposed of, I would certainly consider that.

Mr. MOORHEAD of Pennsylvania. Mr. Chairman, the gentleman from Florida realizes that as a member of the committee he is entitled to first recognition by the Chair, if the Chair follows the usual procedure, as the Chair has been doing.

Mr. Chairman, I will repeat my request. I do not like to move it.

Mr. Chairman, I ask for unanimous consent that all debate on section 3 close at 6:40.

The CHAIRMAN. Is there objection to the request of the gentleman from Pennsylvania?

Mr. BROWN of Ohio. Mr. Chairman, I object.

The CHAIRMAN. Objection is heard.

The gentleman from Pennsylvania (Mr. Moorhead) has the floor.

Mr. MOORHEAD of Pennsylvania. Mr. Chairman, I move that all debate on section 3 and all amendments thereto cease at 6:40 p.m.

The question was taken; and on a division (demanded by Mr. Rousset) there were—ayes 43, noes 33.

Mr. BAUMAN. Mr. Chairman, I demand a recorded vote, and pending that, I make the point of order that a quorum is not present.

The CHAIRMAN. The Chair will count. One hundred and three Members are present, a quorum.

RECORDED VOTE

The CHAIRMAN. The pending business is the demand of the gentleman from Maryland (Mr. Bauman) for a recorded vote.

A recorded vote was ordered.

The vote was taken by electronic device, and there were—ayes 209, noes 183, answered "present" 1, not voting 41, as follows:

[Roll No. 280]

AYES—209

Addabbo	Byron	Gibbons
Akaka	Carter	Ginn
Albosta	Chappell	Goodling
Alexander	Clay	Gore
Andrews, N.C.	Coelho	Green
Annunzio	Collins, Ill.	Guarini
Applegate	Corman	Gudger
Ashley	Cotter	Hall, Ohio
AuCoin	Daniel, Dan	Hall, Tex.
Bailey	Danielson	Hance
Baldus	Derrick	Hanley
Barnard	Dicks	Harris
Barnes	Dixon	Hawkins
Beard, R.I.	Drinan	Hefner
Beard, Tenn.	Duncan, Oreg.	Hightower
Beilenson	Duncan, Tenn.	Holland
Benjamin	Erlenborn	Hollenbeck
Bennett	Fary	Howard
Bevill	Fascell	Hubbard
Biaggi	Fazio	Huckaby
Bingham	Ferraro	Hughes
Blanchard	Findley	Hutto
Boggs	Fisher	Ireland
Boland	Fithian	Jenkins
Boner	Flippo	Johnson, Calif.
Bonior	Florio	Jones, N.C.
Bouquard	Foley	Jones, Okla.
Bowen	Ford, Mich.	Jones, Tenn.
Brademas	Fountain	Kastenmeier
Brinkley	Frost	Kazen
Brodhead	Fuqua	Kildee
Brooks	Garcia	Kogovsek
Brown, Calif.	Gaydos	LaFalce
Burlison	Gephardt	Leach, La.

AYES—Continued

Leath, Tex.	Nedzi	Snyder
Lederer	Nelson	Solarz
Lehman	Nichols	St Germain
Leland	Nolan	Stack
Lent	Nowak	Staggers
Levitas	Oakar	Steed
Lloyd	Obey	Stenholm
Long, La.	O'Brien	Stewart
Long, Md.	Paul	Stokes
Lowry	Pepper	Stratton
Luken	Perkins	Stump
Lundine	Peyser	Swift
McClory	Pickle	Synar
McCormack	Preyer	Traxler
McDade	Price	Udall
McKay	Pursell	Van Deerlin
McKinney	Quillen	Vanik
Marks	Rahall	Vento
Matsui	Ratchford	Watkins
Mattox	Reuss	Waxman
Mavroules	Roberts	Weaver
Mica	Roe	Whitley
Mikva	Rose	Whitten
Mineta	Rosenthal	Wilson, Bob
Minish	Rostenkowski	Wilson, Tex.
Moakley	Roybal	Wirth
Mollohan	Russo	Wolff
Montgomery	Sabo	Wolpe
Moorhead, Pa.	Sawyer	Wright
Mottl	Sebelius	Wyatt
Murphy, Ill.	Selberling	Wydler
Murphy, N.Y.	Shelby	Yates
Murphy, Pa.	Simon	Young, Mo.
Murtha	Skelton	Zablocki
Myers, Pa.	Slack	Zefaretti
Natcher	Smith, Iowa	

NOES—183

Abdnor	Carney	Devine
Ambro	Cavanaugh	Dickinson
Anderson, Calif.	Cheney	Dodd
Andrews, N. Dak.	Clausen	Donnelly
Anthony	Cleveland	Dornan
Archer	Clinger	Dougherty
Ashbrook	Coleman	Early
Aspin	Collins, Tex.	Edgar
Atkinson	Conte	Edwards, Ala.
Badham	Corcoran	Edwards, Calif.
Bauman	Coughlin	Edwards, Okla.
Bedell	Courter	Emery
Bereuter	Crane, Daniel	Erdahl
Bethune	Crane, Philip	Ertel
Broomfield	D'Amours	Evans, Del.
Brown, Ohio	Daniel, R. W.	Evans, Ind.
Broyhill	Dannemeyer	Fenwick
Buchanan	Daschle	Fish
Burgener	Davis, Mich.	Fowler
Burton, John	de la Garza	Frenzel
Burton, Phillip	Deckard	Gilman
Butler	Dellums	Gingrich
Campbell	Derwinski	Glickman

NOES—Continued

Goldwater	McDonald	Schroeder
Gonzales	McEwen	Schulze
Gradison	McHugh	Sensenbrenner
Gramm	Madigan	Shannon
Grassley	Maguire	Sharp
Grisham	Markey	Shumway
Guyer	Marlenee	Shuster
Hagedorn	Martin	Smith, Nebr.
Hamilton	Mathis	Snowe
Hammerschmidt	Michel	Solomon
Hansen	Miller, Calif.	Spence
Harkin	Miller, Ohio	Stangeland
Heckler	Mitchell, Md.	Stanton
Hillis	Mitchell, N.Y.	Stark
Hinson	Moffett	Stockman
Holt	Moore	Studds
Horton	Myers, Ind.	Symms
Hyde	Neal	Tauke
Ichord	Ottinger	Taylor
Jacobs	Panetta	Thomas
Jeffords	Pashayan	Treen
Johnson, Colo.	Pease	Trible
Kelly	Petri	Vander Jagt
Kemp	Pritchard	Volkmer
Kindness	Quayle	Walgren
Kostmayer	Railsback	Walker
Kramer	Regula	Wampler
Lagomarsino	Rhodes	Weiss
Latta	Richmond	White
Leach, Iowa	Rinaldo	Whitehurst
Lee	Ritter	Whittaker
Lewis	Robinson	Williams, Mont.
Livingston	Roth	Williams, Ohio
Loeffler	Rousselot	Winn
Lott	Royer	Wyllie
Lujan	Rudd	Yatron
Lungren	Satterfield	Young, Alaska
McCloskey	Scheuer	Young, Fla.

ANSWERED "PRESENT"—1

Bafalis

NOT VOTING—41

Anderson, Ill.	Evans, Ga.	Mikulski
Bolling	Flood	Moorhead, Calif.
Bonker	Ford, Tenn.	Oberstar
Breaux	Forsythe	Patten
Carr	Glaimo	Patterson
Chisholm	Gray	Rangel
Conable	Harsha	Rodino
Conyers	Heftel	Runnels
Davis, S.C.	Holtzman	Santini
Diggs	Hopkins	Spellman
Dingell	Jeffries	Thompson
Downey	Jenrette	Ullman
Eckhardt	Marriott	Wilson, C. H.
English	Mazzoli	

Mr. Hyde changed his vote from "aye" to "no."

So the motion was agreed to.

The result of the vote was announced as above recorded.

LEGISLATIVE PROGRAM

(Mr. O'Neill asked and was given permission to speak out of order for 1 minute.)

Mr. O'NEILL. Mr. Chairman, I take this time to announce the program for tonight and the remainder of the week.

It is my understanding from the members of the committee that when this bill came out of committee, 39 to 1, that it would be through the House in a couple of hours.

It is necessary that we complete this bill. We will go until completion of this bill tonight.

The program for the remainder of the week will be:

Tomorrow, we will bring up HUD and complete HUD appropriations.

Then we will take up labor/HEW appropriations and finish Labor/HEW appropriations. It appears as though we will have a late evening.

We must complete before the week is out the Crude Oil Excess Profits Tax Act of 1979, additional authorizations for food stamps, and the sanctions on Zimbabwe Rhodesia.

I would hope that the Members would bear with us during these times.

We are going home for a district work week at 3 o'clock on Friday. We cannot leave until those five items are out of the way.

The CHAIRMAN. The Chair will attempt to explain the situation.

The Committee has just voted to end all debate on section 3 and all amendments thereto at 6:40. The Chair in a moment is going to ask those Members wishing to speak between now and then to stand. The Chair will advise Members that he will attempt, once that list is determined, to recognize first those Members on the list with amendments which are not protected by having been printed in the Record.

The Chair would ask those Members wishing to be recognized in the remaining 20 minutes to stand.

PARLIAMENTARY INQUIRY

Mr. BROWN of Ohio. Mr. Chairman, I have a parliamentary inquiry.

The CHAIRMAN. The gentleman from Ohio will state his parliamentary inquiry.

Mr. BROWN of Ohio. Mr. Chairman, did I understand the Chair correctly that Members who are protected by having their amendments printed in the Record will not be recognized until the time has run so that those Members will only have 5 minutes to present their amendments, but that other Members will be recognized first for the amendments which are not printed in the Record?

The CHAIRMAN. Those Members who are recognized prior to the expiration of time have approximately 20 seconds to present their amendments. Those Members whose amendments are printed in the Record will have a guaranteed 5 minutes after time has expired.

Mr. BROWN of Ohio. Further parliamentary inquiry.

The CHAIRMAN. The gentleman will state it.

Mr. BROWN of Ohio. In what way does that protect Members by having their amendments then printed in the Record? It would seem

to me they are penalized by having their time limited to 5 minutes and the other time goes ahead and runs in terms of general debate.

The CHAIRMAN. The Chair will advise the gentleman that Members do not need and are not required to seek their protection for debate on the amendment under the rules, but if they do not they will be recognized for at most 20 seconds instead of 5 minutes.

Mr. BROWN of Ohio. Under this piece of legislation, a major piece of legislation, amendments will be considered in 20 seconds, is that right?

The CHAIRMAN. The Committee has so voted.

The Chair will now recognize those Members who wish to offer amendments which have not been printed in the Record.

The Chair will advise Members he will recognize listed Members in opposition to the amendments also for 20 seconds.

PARLIAMENTARY INQUIRY

Mr. KELLY. Mr. Chairman, I have a parliamentary inquiry.

The CHAIRMAN. The gentleman will state it.

Mr. KELLY. Mr. Chairman, is it not regular order that the Members of the Committee with amendments be given preference and recognition?

The CHAIRMAN. The Chair would advise the gentleman once the limitation of time has been agreed to and time divided, that priority of recognition is within the complete discretion of the Chair.

AMENDMENT OFFERED BY MR. WHITE

Mr. WHITE. Mr. Chairman, I offer an amendment.

The Clerk read as follows:

Amendment offered by Mr. White: Page 5, line 13, by striking the words "or resale; and" substitute therefor the words "or resale for use conducive to defense needs or for use in the United States, its possessions or territories, or by domestic users; and".

The CHAIRMAN. The Chair recognizes the gentleman from Texas (Mr. White).

(Mr. White asked and was given permission to revise and extend his remarks.)

Mr. WHITE. Mr. Chairman, this bill as written will allow resale of synthetics to anywhere and to anyone. My amendment merely restricts such resale to domestic users, to defense needs, to people in the United States, territories, and possessions. That is all it does. I think this is what the committee intended.

Mr. MOORHEAD of Pennsylvania. Mr. Chairman, will the gentleman yield?

Mr. WHITE. Yes, I will yield to the gentleman.

Mr. MOORHEAD of Pennsylvania. I think the amendment is a good one, and this side of the aisle has no objection to it.

The CHAIRMAN. Does any Member wish to speak in opposition to the amendment?

The question is on the amendment offered by the gentleman from Texas (Mr. White).

The amendment was agreed to.

AMENDMENT OFFERED BY MR. BROOKS

Mr. BROOKS. Mr. Chairman, I offer an amendment.

The Clerk read as follows:

Amendment offered by Mr. Brooks: On page 9, after line 15, insert the following:

(3) Any corporation organized pursuant to the provisions of this subsection shall be subject to the provisions of the Government Corporation Control Act (31 U.S.C. 841-870) and shall for the purposes of such Act be deemed to be wholly-owned government corporations as defined in section 101 of such Act (31 U.S.C. 846).

The CHAIRMAN (during the reading). The Chair would advise Members that some decisions of consequence have to be made under very difficult circumstances and I would urge them to let the amendments be heard.

The Clerk concluded the reading of the amendment.

The Chair recognizes the gentleman from Texas (Mr. Brooks).

(Mr. Brooks asked and was given permission to revise and extend his remarks.)

Mr. BROOKS. Mr. Chairman, I will not take all of my time.

Mr. Chairman, this legislation authorizes the President to organize wholly owned Government corporations which will have substantial authority to purchase and lease land, buildings, plants, and equipment. There are no guidelines contained in the bill as to how the corporations are to function. Many years ago, the Congress enacted the Government Corporation Control Act which establishes certain minimum requirements for wholly owned Government corporations. Those provide for such things as financial control, budgeting, reports to Congress, auditing by the General Accounting Office, and other routine management requirements. That act applies to such wholly owned Government corporations as the Commodity Credit Corporation, the Defense Plant Corporation, the Rubber Development Corporation, the Government National Mortgage Association, the Export-Import Bank of the United States, the Petroleum Reserves Corporation, the Tennessee Valley Authority, and a number of others.

My amendment would simply provide that any corporation organized under the provisions of this synthetic fuels bill could be subject to the provisions of the Government Corporation Control Act. The grant of authority to the President in this legislation is extremely broad, and I believe that Congress should at least require the applicability of these minimum financial controls.

Mr. MOORHEAD of Pennsylvania. Mr. Chairman, will the gentleman yield?

Mr. BROOKS. I yield to the gentleman from Pennsylvania.

Mr. MOORHEAD of Pennsylvania. Mr. Chairman, we accept the amendment of the gentleman from Texas.

The CHAIRMAN. The question is on the amendment offered by the gentleman from Texas (Mr. Brooks).

The amendment was agreed to.

AMENDMENT OFFERED BY MR. KELLY

Mr. KELLY. Mr. Chairman I offer an amendment.

The Clerk read as follows:

Amendment offered by Mr. Kelly: Page 3, line 7, after "thereof" strike "\$38,000,000" and insert in lieu thereof—"100,000,000".

Page 4, line 5, strike "\$48,000,000" and insert in lieu thereof "\$125,000,000".

Mr. KELLY (during the reading). Mr. Chairman, I ask unanimous consent that the amendment be limited to that which has been read and that the two portions of the amendment be considered en bloc.

The CHAIRMAN. Is there objection to the request of the gentleman from Florida?

Mr. OTTINGER. Mr. Chairman, reserving the right to object, can the gentleman give me an idea what he seeks to do?

The CHAIRMAN. The gentleman from Florida will restate his unanimous consent request.

Mr. KELLY. The unanimous-consent request is that the amendment be limited to the portion that has been read and that since there are two parts to it, they be considered en bloc.

Mr. OTTINGER. What is the effect of it? I just do not understand.

Mr. KELLY. The effect of the amendment is to increase the guarantee authority and the loan authority.

Mr. OTTINGER. Mr. Chairman, I think that is a very bad idea, and I object.

The CHAIRMAN. Objection is heard.

The Clerk will continue to read the amendment.

The Clerk continued to read the amendment as follows:

Page 4, line 25, strike "500,000" and insert in lieu thereof "400,000".

Page 5, line 2, after "section." insert the following: "Thereafter production of synthetic fuels and synthetic chemical feedstocks shall proceed according to the following schedule: at least 800,000 barrels per day crude oil equivalent not later than ten years after the effective date of this section, at least 1,200,000 barrels per day not later than fifteen years after the effective date of this section, at least 1,600,000 barrels per day not later than twenty years after the effective date of this section, and at least 2,000,000 barrels per day not later than twenty-five years after the effective date of this section. Said production goals shall be subject to review by Congress every two years."

Page 5, line 24, strike out "goal" and insert in lieu thereof "goals".

Page 8, line 16, strike out goal" and insert in lieu thereof "goals".

Mr. KELLY (during the reading). Mr. Chairman, the Clerk has misread the amendment.

The CHAIRMAN. The Clerk is reading the amendment submitted to him. Does the gentleman have a different amendment?

Mr. KELLY. No, the Clerk read 50,000 and 40,000. It is 500,000 and 400,000.

The CHAIRMAN. The Clerk read 500,000 and 400,000, as the amendment reads.

The Clerk will reread the amendment.

The Clerk reread the amendment.

POINT OF ORDER

Mr. GORE. Mr. Chairman, a point of order.

The CHAIRMAN. The gentleman will state it.

Mr. GORE. If I am not mistaken, Mr. Chairman, the Wright amendment, which has already been acted upon, amended page 4, line 25, and changed the 500,000 figure already. The gentleman seeks to return

to that line and change the figure once again, which has already been changed.

I would think that a point of order would lie against the amendment.

The CHAIRMAN. Does the gentleman from Florida wish to be heard?

PARLIAMENTARY INQUIRY

Mr. KELLY. Mr. Chairman, I have a parliamentary inquiry.

The CHAIRMAN. The gentleman will state it.

Mr. KELLY. Mr. Chairman, is it not within my authority to limit my amendment to the first four lines of the amendment as it is printed?

The CHAIRMAN. The gentleman may offer a new amendment if he wishes.

Mr. KELLY. I do offer a new amendment, Mr. Chairman, which is limited to the first four lines.

The CHAIRMAN. Does the gentleman concede the point of order on the original amendment?

Mr. KELLY. Yes, Mr. Chairman.

The CHAIRMAN. The point of order is conceded and therefore sustained.

AMENDMENT OFFERED BY MR. KELLY

The CHAIRMAN. Does the gentleman have a new amendment?

Mr. KELLY. The amendment, Mr. Chairman, is the first four lines of the amendment as it is printed and at the desk.

The CHAIRMAN. The Clerk will report the amendment.

The Clerk read as follows:

Amendment offered by Mr. Kelly: Page 3, line 7, after "thereof" strike "\$38,000,000" and insert in lieu thereof "\$100,000,000".

Page 4, line 5, strike "\$48,000,000" and insert in lieu thereof "\$125,000,000".

The CHAIRMAN. The Chair recognizes the gentleman from Florida (Mr. Kelly).

(By unanimous consent, Mr. Thomas yielded his time to Mr. Kelly.)

Mr. KELLY. Mr. Chairman, I think that the Congress has got to understand that the only reason the private sector has not already been producing synthetic fuels is because it is not economical at this time. Petroleum is cheaper. If we are going to encourage them to produce synthetic fuels, then we are going to have to provide the only thing we can provide, and that is money, and clear away as much impediment as we can.

This amendment will make more money available, and if we want to produce energy, then money is going to be the thing we can supply; limit regulation and supply money. If we are not serious about that, then the President under the authority of this act has the authority to form a Federal Corporation and put the Government in the business of producing energy. This Mr. Chairman is close to socialism and a procedure in which the public has no confidence.

The CHAIRMAN. The time of the gentleman from Florida has expired.

Mr. GORE. Mr. Chairman, I rise in opposition to the amendment.

I think clearly, under these circumstances, the Committee of the Whole should not make a decision of this magnitude without more opportunity to judge its implications. Basically, what the gentleman

from Florida is trying to do is to triple the loan limit level to \$125 million. The committee, in its wisdom, considered this limit and decided the limit in the bill is high enough.

The CHAIRMAN. The question is on the amendment offered by the gentleman from Florida (Mr. Kelly).

The amendment was rejected.

The CHAIRMAN. Are there other Members on the floor who have amendments which are not printed in the Record?

AMENDMENT OFFERED BY MR. UDALL

Mr. UDALL. Mr. Chairman, I offer an amendment.

Mr. KOSTMAYER. Mr. Chairman, I ask unanimous consent to yield my time to the gentleman from Arizona (Mr. Udall).

The CHAIRMAN. Is there objection to the request of the gentleman from Nebraska?

Mr. BAUMAN. Mr. Chairman, I object.

The CHAIRMAN. Objection is heard.

The Clerk read as follows:

Amendment offered by Mr. Udall: Page 8, after line 13 add the following new subsection and renumber the subsequent sections accordingly:

(g) (1) The Secretary of Energy is hereby authorized to designate a proposed synthetic fuel or feedstock facility as a priority synthetic project pursuant to the procedures and criteria provided in this section.

(2) For the purposes of this section the term—

(A) Synthetic fuel or feedstock facility means any physical structure, including any equipment, building, mine processing facility or other facility or installation used in the development or production of synthetic fuels or synthetic chemical feedstocks that are subject to loan guarantees contract for purchase or commitment to purchase authorized by this Act or produced by a corporation created pursuant to this Act;

(B) "Secretary" means the Secretary of Energy;

(C) "Deputy Secretary" means the Deputy Secretary of the Department of Energy.

(h) (1) Any person planning or proposing a synthetic fuel or feedstock facility may apply to the Secretary of Energy for an order designating such facility as a priority synthetic project.

(2) The Secretary shall publish notice of the filing of the designation request, together with a description thereof in the Federal Register; and interested persons shall be afforded thirty days thereafter within which to submit written comments for the Secretary's consideration.

(3) The Deputy Secretary shall transmit copies of the application for designation as a priority synthetic project, as well as any other information the Deputy Secretary deems relevant, to the appropriate agencies so that those agencies may begin preparation of the requirements specified in subsection (L) in the event that the applicant eventually receives designation as a priority synthetic project.

(i) Not later than forty-five days after receipt of an application authorized under the previous section, the Secretary shall determine whether the proposed synthetic fuel or feedstock facility is of sufficient national interest to be designated a priority synthetic project. Upon reaching a determination the Secretary shall publish his decision in the Federal Register and shall notify the applicant and the agencies identified in subsection (h) (3). In making such a determination the Secretary shall consider—

(1) the extent to which the facility would reduce the Nation's dependence upon imported oil;

(2) the magnitude of any adverse environmental impacts associated with the facility and the existence of alternatives that would have fewer adverse impacts;

(3) the extent to which the proposed facility would make use of renewable energy resources;

(4) the extent to which the proposed facility would promote energy conservation;

(5) the extent to which the proposed facility would contribute to the development of new production or conservation technologies and techniques;

(6) the time that would normally be required to obtain all necessary Federal approvals and the adverse impacts that would result from delay in completion of the proposed facility;

(7) the extent to which the applicant is prepared to complete or has already completed the significant actions which the applicant in consultation with the Deputy Secretary anticipate will be identified under subsection (L) as required from the applicant; and

(8) the public comments received concerning such facility.

(j) A determination by the Secretary under subsection (i) of this section is not a major Federal action within the meaning of section 102(2) of the National Environmental Policy Act of 1969.

(k) The Secretary shall encourage prospective applicants under subsection (h) to file applications for any necessary Government actions or approvals with the appropriate agencies as soon as possible in order that any eventual action or decision may be expedited. The Secretary shall consider any failure to file such applications in a timely fashion in making his determination on an application under subsection (i).

(l) Not later than thirty days after notice appears in the Federal Register of an order designating a proposed synthetic fuel or feedstock facility as a priority synthetic project, any Federal agency with authority to grant or deny any approval or to perform any action necessary to the completion of such project or any part thereof, shall transmit to the Secretary of Energy and to the priority energy project—

(1) a compilation of all significant actions required by such agency before a final decision or any necessary approval(s) can be rendered;

(2) a compilation of all significant actions and information required of the applicant before a final decision by such agency can be made;

(3) a tentative schedule for completing actions and obtaining the information listed in subsections (1) and (2) of this subsection;

(4) all necessary application forms that must be completed by the priority energy project before such approval can be granted; and

(5) the amounts of funds and personnel available to such agency to conduct such actions and the impact of such schedule on other applications pending before such agency.

(m) (1) Not later than sixty days after notice appears in the Federal Register of an order designating a synthetic fuel or feedstock facility as a priority synthetic project, the Secretary, in consultation with the appropriate Federal, State, and local agencies shall publish in the Federal Register a Project Decision Schedule containing deadlines for all Federal actions relating to such project. The Project Decision Schedule shall clearly identify the order in which licenses, permits and other Government approvals must be obtained by the priority synthetic project before such project can be completed. The Project Decision Schedule may also recommend concurrent review of applications and joint hearings by agencies by Federal, State, and local governments.

(2) The deadlines in the Project Decision Schedule shall be consistent with the deadlines submitted to the Secretary under subsection (l) unless the Secretary determines that different deadlines are essential in order to expedite and coordinate Government review or in order to meet the requirements of subparagraph (4) of this section.

(3) All deadlines in the Project Decision Schedule shall be consistent with the statutory obligations of Federal agencies governed by such Schedule.

(4) Except as provided in subparagraph (3) above and in subsection (p) no deadline established under this section or extension granted under subparagraph (5) of this section may result in the total time for agency action exceeding nine months beginning from the date on which notice appears in the Federal Register of an order designating the proposed synthetic fuel or feedstock facility as a priority synthetic project.

(5) Notwithstanding any deadline or other provision of Federal law, the deadlines imposed by the Project Decision Schedule shall constitute the lawful decision making deadlines for reviewing applications filed by the priority synthetic project.

(6) Upon the petition of any agency with authority to approve or disapprove any application, or of any priority synthetic project, the Secretary may review

any procedure, extend any deadline, or modify in any other way, the Project Decision Schedule at any time prior to within ninety (90) days after publication of the Project Decision Schedule: *Provided*, That no extension shall be granted unless the Secretary determines that such agency or priority synthetic project has exercised all due diligence in attempting to comply with the Schedule and that it would be impracticable for the agency to reach a decision or complete the required action within the specified time.

(n) If a deadline on the Project Decision Schedule for a final decision or action by a Federal agency has elapsed and such agency has not made the decision or performed the required action the President shall make the decision or perform the action within 60 days in lieu of the Federal agency. The President shall not make a decision pursuant to this section unless there has been notice and an opportunity for public comment on such decision. The decision of the President pursuant to this section shall be final.

(o)(1) In the event that a Federal agency or a priority synthetic project desires an extension of any deadline then the Federal agency may request an extension from the President of not longer than 120 days.

(2) In making his decision under this section, the President is to consider the purposes of this title, the national need for speed in completion of the priority synthetic project, and such other factors as the President considers relevant. The President shall not grant an extension unless he determines that the agency or the project requesting the extension has exercised all due diligence in attempting to comply with the schedule and that it would be impracticable for the agency to reach a decision or complete the required action within the specified time.

(3) The President shall make and shall publish his decision in the Federal Register within 30 days from the receipt of the request for an extension. The decision of the President shall be final.

(4) No more than one extension may be granted by the President under this section.

(p)(1) If the Secretary determines that all Federal agency actions and approvals necessary to the completion of a priority synthetic project have been granted, the Secretary shall certify the same to the project. Such certification shall indicate the expiration date of any Federal approvals that have been granted to the project.

(2) A certificate issued by the Secretary under subparagraph (1) of this subsection shall constitute conclusive evidence in any judicial or executive proceeding that all necessary Federal permits have been granted for the duration specified on the certificate.

(q)(1) The Secretary shall notify the Governor of any State within which any portion of a priority synthetic project would be located and shall request the Governor to supply—

(A) a compilation of significant actions required by the State and local governments before the priority synthetic project can be completed;

(B) a compilation of significant actions required of the applicant before a final decision can be made;

(C) a schedule for completing the actions listed in subparagraph (A) of this subsection; and

(D) all necessary application forms which must be completed by the applicant before such approval can be granted.

(2) The Secretary may provide any assistance authorized by law to assist State and local authorities in complying with requests for cooperation from the Secretary.

(r)(1) The Secretary shall transmit to the priority synthetic project all information received from State and local governments pursuant to requests from the Secretary under section (q).

(2) The Secretary, after consultation with State and local authorities, shall propose a decision schedule to assist State and local authorities in coordinating their activities with actions by the Federal Government.

(3) The Secretary may participate or intervene in the proceeding of any State or local agency which permits such participation or intervention in order to request such agency to adopt procedures recommended by the Secretary.

(4) The Secretary shall keep apprised of the processing of applications for priority synthetic projects by State and local governments. If the Secretary determines that a priority synthetic project is being delayed or threatened with by the inability or unwillingness of any State or local government to im-

a schedule for timely review and decision, the Secretary shall notify the

Governor of such State and transmit to the Congress a statement describing the delay and recommending action to alleviate or prevent the delay.

Mr. UDALL (during the reading). Mr. Chairman, I ask unanimous consent to dispense with further reading of the amendment.

The CHAIRMAN. Is there objection to the request of the gentleman from Arizona?

Mr. BAUMAN. Mr. Chairman, I object.

The CHAIRMAN. Objection is heard.

The Clerk will read.

The Clerk continued the reading of the amendment.

POINT OF ORDER

Mr. BROWN of Ohio (during the reading). Mr. Chairman, a point of order.

The CHAIRMAN. The gentleman will state it.

Mr. BROWN of Ohio. Mr. Chairman, is this amendment to section 3 or section 4?

Mr. UDALL. This is an amendment to section 3, the Udall fast-track amendment, which cuts through the redtape.

Mr. BROWN of Ohio. The copy I have indicates that it is to section 4, Mr. Chairman. Is that correct?

Mr. UDALL. I had modified it to apply to section 3.

The CHAIRMAN. The Clerk will cease reading the amendment.

The Chair will advise the gentleman from Arizona that this amendment currently being read adds a new section 4, and is not covered by the limitation on time, and should not be offered at this time.

PARLIAMENTARY INQUIRY

Mr. BROWN of Ohio. Mr. Chairman, a parliamentary inquiry.

The CHAIRMAN. The gentleman will state it.

Mr. BROWN of Ohio. Mr. Chairman, if I understand correctly, the gentleman was recognized on the basis that the amendment had not been printed in the Record, and therefore it would not be appropriate under this limitation for it to be considered at all, is that not correct?

Mr. UDALL. I had intended—I had so instructed the Clerk to change this to an amendment to section 3, not section 4.

The CHAIRMAN. The amendment, the Chair states to the gentleman, would have to be submitted to the Clerk.

Mr. BROWN of Ohio. My point of order is sustained or——

The CHAIRMAN. Yes. The Chair will advise the gentleman from Arizona that he is within his rights to redraft the amendment as an amendment to section 3, but the Chair understood that is not the amendment currently being read.

Mr. UDALL. I so offer it as an amendment to section 3.

The CHAIRMAN. The Clerk will report the amendment.

Mr. BROWN of Ohio. Mr. Chairman, I would like to proceed in my point of order. If the amendment is offered to section 4, it is not appropriate at this time.

The CHAIRMAN. The Clerk will report the amendment. Any points of order——

Mr. BROWN of Ohio. The Clerk, I understood, Mr. Chairman, had reported the amendment.

The CHAIRMAN. The Clerk has a new amendment in his hand, which he will report.

Mr. BROWN of Ohio. Was this the amendment offered under the time limitation, Mr. Chairman?

The CHAIRMAN. It is now being offered under that limitation.

Mr. BROWN of Ohio. Was the amendment printed in the Record, Mr. Chairman?

The CHAIRMAN. The amendment was not printed in the Record.

Mr. BROWN of Ohio. This amendment was not printed in the Record?

The CHAIRMAN. That is correct. The Clerk will report the amendment.

The Clerk read as follows:

Amendment offered by Mr. Udall: Page 8, after line 13 add the following new subsection and renumber the subsequent sections accordingly:

(g) (1) The Secretary of Energy is hereby authorized to designate a proposed synthetic fuel or feedstock facility as a priority synthetic project pursuant to the procedures and criteria provided in this section.

(2) For the purposes of this section the term—

(A) "Synthetic fuel or feedstock facility" means any physical structure, including any equipment, building, mine processing facility or other facility or installation used in the development or production of synthetic fuels or synthetic chemical feedstocks that are subject to loan guarantees contract for purchase or commitment to purchase authorized by this Act or produced by a corporation created pursuant to this Act;

(B) "Secretary" means the Secretary of Energy;

(C) "Deputy Secretary" means the Deputy Secretary of the Department of Energy.

(h) (1) Any person planning or proposing a synthetic fuel or feedstock facility may apply to the Secretary of Energy for an order designating such facility as a priority synthetic project.

(2) The Secretary shall publish notice of the filing of the designation request, together with a description thereof in the Federal Register; and interested persons shall be afforded thirty days thereafter within which to submit written comments for the Secretary's consideration.

(3) The Deputy Secretary shall transmit copies of the application for designation as a priority synthetic project, as well as any other information the Deputy Secretary deems relevant, to the appropriate agencies so that those agencies may begin preparation of the requirements specified in subsection (1) in the event that the applicant eventually receives designation as a priority synthetic project.

(i) Not later than forty-five days after receipt of an application authorized under the previous section, the Secretary shall determine whether the proposed synthetic fuel or feedstock facility is of sufficient national interest to be designated a priority synthetic project. Upon reaching a determination the Secretary shall publish his decision in the Federal Register and shall notify the applicant and the agencies identified in subsection (h) (3). In making such a determination the Secretary shall consider—

(1) the extent to which the facility would reduce the Nation's dependence upon imported oil;

(2) the magnitude of any adverse environmental impacts associated with the facility and the existence of alternatives that would have fewer adverse impacts;

(3) the extent to which the proposed facility would make use of renewable energy resources;

(4) the extent to which the proposed facility would promote energy conservation;

(5) the extent to which the proposed facility would contribute to the development of new production or conservation technologies and techniques;

(6) the time that would normally be required to obtain all necessary Federal approvals and the adverse impacts that would result from delay in completion of the proposed facility;

(7) the extent to which the applicant is prepared to complete or has already completed the significant actions which the applicant in consultation with the Deputy Secretary anticipate will be identified under subsection (1) as required from the applicant; and

(8) the public comments received concerning such facility.

(j) A determination by the Secretary under subsection (1) of this section is not a major Federal action within the meaning of section 102(2) of the National Environmental Policy Act of 1969.

(k) The Secretary shall encourage prospective applicants under subsection (h) to file applications for any necessary Government actions or approvals with the appropriate agencies as soon as possible in order that any eventual action or decision may be expedited. The Secretary shall consider any failure to file such applications in a timely fashion in making his determination on an application under subsection (1).

(l) Not later than thirty days after notice appears in the Federal Register of an order designating a proposed synthetic fuel or feedstock, any Federal agency with authority to grant or deny any approval or to perform any action necessary to the completion of such project or any part thereof, shall transmit to the Secretary of Energy and to the priority energy project—

(1) a compilation of all significant actions required by such agency before a final decision or any necessary approval(s) can be rendered;

(2) a compilation of all significant actions and information required of the applicant before a final decision by such agency can be made;

(3) a tentative schedule for completing actions and obtaining the information listed in subsections (1) and (2) of this subsection;

(4) all necessary application forms that must be completed by the priority energy project before such approval can be granted; and

(5) the amounts of funds and personnel available to such agency to conduct such actions and the impact of such schedule on other applications pending before such agency.

(m) (1) Not later than sixty days after notice appears in the Federal Register of an order designating a synthetic fuel or feedstock facility as a priority synthetic project, the Secretary, in consultation with the appropriate Federal, State and local agencies shall publish in the Federal Register a Project Decision Schedule containing deadlines for all Federal actions relating to such project. The Project Decision Schedule shall clearly identify the order in which licenses, permits and other Government approvals must be obtained by the priority synthetic project before such project can be completed. The Project Decision Schedule may also recommend concurrent review of applications and joint hearings by agencies by Federal, State and local governments.

(2) The deadlines in the Project Decision Schedule shall be consistent with the deadlines submitted to the Secretary under subsection (1) unless the Secretary determines that different deadlines are essential in order to expedite and coordinate Government review or in order to meet the requirements of subparagraph (4) of this section.

(3) All deadlines in the Project Decision Schedule shall be consistent with the statutory obligations of Federal agencies governed by such Schedule.

(4) Except as provided in subparagraph (3) above and in subsection (p) no deadline established under this section or extension granted under subparagraph (5) of the section may result in the total time for agency action exceeding nine months beginning from the date on which notice appears in the Federal Register of an order designating the proposed synthetic fuel or feedstock facility as a priority synthetic project.

(5) Notwithstanding any deadline or other provision of Federal law, the deadlines imposed by the Project Decision Schedule shall constitute the lawful decisionmaking deadlines for reviewing applications filed by the priority synthetic project.

(6) Upon the petition of any agency with authority to approve or disapprove any application, or of any priority synthetic project the Secretary may review any procedure, extend any deadline, or modify in any other way, the Project Decision Schedule at any time prior to within ninety (90) days after publication of the Project Decision Schedule: *Provided*, That no extension shall be granted unless the Secretary determines that such agency or priority synthetic project has exercised all due diligence in attempting to comply with the Schedule and that it would be impracticable for the agency to reach a decision or complete the required action within the specified time.

(n) If a deadline on the Project Decision Schedule for a final decision or action by a Federal agency has elapsed and such agency has not made the decision or performed the required action, the President shall make the decision or perform the action within 60 days in lieu of the Federal agency. The President shall not make a decision pursuant to this section unless there has been notice and an opportunity for public comment on such decision. The decision of the President pursuant to this section shall be final.

(o) (1) In the event that a Federal agency or a priority synthetic project desires an extension of any deadline then the Federal agency may request an extension from the President of not longer than 120 days.

(2) In making his decision under this section, the President is to consider the purposes of this title, the national need for speed in completion of the priority synthetic project, and such other factors as the President considers relevant. The President shall not grant an extension unless he determines that the agency or the project requesting the extension has exercised all due diligence in attempting to comply with the schedule and that it would be impracticable for the agency to reach a decision or complete the required action within the specified time.

(3) The President shall make and shall publish his decision in the Federal Register within 30 days from the receipt of the request for an extension. The decision of the President shall be final.

(4) No more than one extension may be granted by the President under this section.

(p) (1) If the Secretary determines that all Federal agency actions and approvals necessary to the completion of a priority synthetic project have been granted, the Secretary shall certify the same to the project. Such certification shall indicate the expiration date of any Federal approvals that have been granted to the project.

(2) A certificate issued by the Secretary under subparagraph (1) of this subsection shall constitute conclusive evidence in any judicial or executive proceeding that all necessary Federal permits have been granted for the duration specified on the certificate.

(q) (1) The Secretary shall notify the Governor of any State within which any portion of a priority synthetic project would be located and shall request the Governor to supply—

(A) a compilation of significant actions required by the State and local governments before the priority synthetic project can be completed;

(B) a compilation of significant actions required of the applicant before a final decision can be made;

(C) a schedule for completing the actions listed in subparagraph (A) of this subsection; and

(D) all necessary application forms which must be completed by the applicant before such approval can be granted.

(2) The Secretary may provide any assistance authorized by law to assist State and local authorities in complying with requests for cooperation from the Secretary.

(r) (1) The Secretary shall transmit to the priority synthetic project all information received from State and local governments pursuant to requests from the Secretary under section (q).

(2) The Secretary, after consultation with State and local authorities, shall propose a decision schedule to assist State and local authorities in coordinating their activities with actions by the Federal government.

(3) The Secretary may participate or intervene in the proceeding of any State or local agency which permits such participation or intervention in order to request such agency to adopt procedures recommended by the Secretary.

(4) The Secretary shall keep apprised of the processing of applications for priority synthetic projects by State and local governments. If the Secretary determines that a priority synthetic project is being delayed or threatened with delay by the inability or unwillingness of any State or local government to implement a schedule for timely review and decision, the Secretary shall notify the Governor of such State and transmit to the Congress a statement describing the delay and recommending action to alleviate or prevent the delay.

Mr. UDALL (during the reading). Mr. Chairman, I ask unanimous consent that the amendment be considered as read and printed in the Record.

The CHAIRMAN. Is there objection to the request of the gentleman from Arizona?

POINT OF ORDER

Mr. BROWN of Ohio. Mr. Chairman, reserving the right to object, I wish to make a point of order. Mr. Chairman, the amendment which I had offered and had printed in the Record would be an appropriate substitute amendment for the amendment offered by the gentleman from Arizona (Mr. Udall). Under the time limitation, if I understand correctly, I have 5 minutes to offer that amendment.

The CHAIRMAN. That is correct if offered in the proper form.

Mr. BROWN of Ohio. But if this amendment is not amended by my amendment and succeeds, then I may be precluded from offering that amendment; is that correct?

The CHAIRMAN. It would be difficult for the Chair to rule on that without having seen the gentleman's amendment.

PARLIAMENTARY INQUIRY

Mr. BROWN of Ohio. The question I would put to the Chair as a parliamentary inquiry is: Does, then, my amendment become appropriate to this amendment and give me the right to 5 minutes to discuss my amendment?

The CHAIRMAN (Mr. Studds). If the gentleman were to offer his amendment as a substitute for this amendment in the form printed in the Record, he would, indeed, have the 5 minutes guaranteed to him under the rule.

Mr. BROWN of Ohio. Then, Mr. Chairman, I offer an amendment to the amendment offered by the gentleman from Arizona (Mr. Udall).

The CHAIRMAN. The Chair will advise the gentleman that it is not yet in order.

Is there objection to the unanimous-consent request of the gentleman from Arizona (Mr. Udall)?

Mr. BAUMAN. Mr. Chairman, I reserve the right to object.

Mr. MCKINNEY. Mr. Chairman, I reserve the right to object.

Mr. Chairman, reserving the right to object, I would like to address a question to the gentleman from Arizona. As I understand it, this amendment was printed in the Record.

Mr. UDALL. If the gentleman will yield, no, it was not.

The CHAIRMAN. Is there objection to the request of the gentleman from Arizona?

Mr. BAUMAN. I object.

The CHAIRMAN. Objection is heard.

The Clerk will read.

The Clerk continued reading the amendment.

Mr. MCKINNEY (during the reading). Mr. Chairman, I ask unanimous consent that the amendment be considered as read and printed in the Record.

The CHAIRMAN. Is there objection to the request of the gentleman from Connecticut?

Mr. BROWN of Ohio. Reserving the right to object, Mr. Chairman, if I understand this amendment now and which one it is, although it is entitled "Section 4," the amendment is 11 pages long, which is longer

than the whole bill, and we are reading it and going to vote on it in 20 minutes. I certainly object to having its reading terminated. I think we should all listen very carefully and know what is in it because there will not be any time for explanation of it. Therefore, I hope all of my colleagues will listen very carefully and get a good idea of what is in it so that they can vote on it.

The CHAIRMAN. Is there objection to the request of the gentleman from Connecticut?

Mr. BROWN of Ohio. I object.

The CHAIRMAN. Objection is heard.

The Clerk will read.

The Clerk continued reading the amendment.

POINT OF ORDER

Mr. BAUMAN. Mr. Chairman, I make a point of order. The Clerk is not reading the amendment. He has skipped a number of pages, and regular order requires the reading of the amendment. I hope he will go back to page 6 where he started skipping and read it all.

The CHAIRMAN. The Clerk is reading the amendment before him verbatim.

Mr. BAUMAN. The gentleman from Maryland has listened very carefully, and that is not the case.

The CHAIRMAN. The Clerk will read.

The Clerk continued reading the amendment.

Mr. McKINNEY (during the reading). Mr. Chairman, I ask unanimous consent the amendment be considered as read and printed in the Record.

The CHAIRMAN. Is there objection to the request of the gentleman from Connecticut?

Mr. CLAUSEN. Reserving the right to object, I yield to the gentleman from Ohio.

The CHAIRMAN. The gentleman from California reserves the right to object.

Mr. BROWN of Ohio. Mr. Chairman, I reserve the right to object in order to make an inquiry of the Chair.

The amendment of the gentleman from Arizona now pending and in the process of being read, I think the Chair advised me, was amendable by the gentleman from Ohio who has an amendment printed in the Record.

The CHAIRMAN. The Chair would advise the gentleman that any proper substitute for the amendment of the gentleman from Arizona would be in order.

Mr. BROWN of Ohio. And the order of recognition for that purpose, may I inquire of the Chair, does not relate to the establishment of the fact that there was an amendment that is appropriate?

The CHAIRMAN. The order of recognition, the Chair will say to the gentleman, depends on the discretion of the Chair, given which Members are seeking recognition at the time.

Mr. BROWN of Ohio. Well, Mr. Chairman, then I am constrained to continue to object.

The CHAIRMAN. Objection is heard.
 The Clerk will read.
 The Clerk continued to read.

POINT OF ORDER

Mr. DINGELL. Mr. Chairman, I have a point of order.

The CHAIRMAN. The gentleman will state his point of order.

Mr. DINGELL. Mr. Chairman, I make a point of order that the amendment offered by my good friend from Arizona is not germane.

The CHAIRMAN. Does the gentleman wish to be heard further on the point of order?

Mr. DINGELL. I am prepared to be heard if that is the wish of the Chair.

The CHAIRMAN. The Chair will hear the gentleman.

The Chair will first advise Members that under the time limitation previously agreed to by the Committee, all time for debate on this and all amendments to section 3 has expired. The gentleman from Michigan is recognized on behalf of his point of order.

Mr. DINGELL. Mr. Chairman, it is well settled the amendment must be germane not only to the section but also to the bill.

Mr. Chairman, the bill relates to the Defense Production Act.

Mr. Chairman, under the amendment, a lengthy process is established whereunder the Secretary of Energy, who is not mentioned elsewhere in the bill, is authorized to designate synthetic fuel or feedstocks facilities as priority synthetic projects, pursuant to lengthy criteria which are set forth at the first and second pages and following.

The Secretary then receives certain directions as to his behavior.

Going on through the amendment, Mr. Chairman, there is a lengthy series of findings which must be made by the Secretary and that is followed by a duty upon the Secretary to publish this in the Federal Register.

Then the Secretary is directed to consult with appropriate Federal, State and local agencies and to publish a project decision schedule, something which does not appear elsewhere in the statute, something which does not appear elsewhere in the bill, and I again call to the attention of the Chair that the amendment to the bill before the body must be germane not only to that bill but also to the basic statute which is amended by the bill before us.

The project decision schedule has to identify licenses, permits and other governmental approvals which must be obtained. It must also recommend concurrent review of applications in joint hearings by agencies in Federal, State, and local governments, something which is not found elsewhere either in the bill before us or in the Defense Production Act.

A series of deadlines are then set up at page 6-A which have to be consistent with deadlines submitted to the Secretary under section M, unless the Secretary determines that different deadlines are necessary.

Mr. Chairman, then on page 7, there is a time limit which is imposed of 9 months at subparagraph (4) and at subparagraph (5)

there are amendments directly or indirectly to provisions to other provisions of Federal law relating to deadlines in the following words:

Notwithstanding any deadline or other provision the Federal law the deadlines imposed by the project decision schedule shall constitute the lawful decisionmaking deadlines for reviewing applications.

Then, there is provision for a petition by agencies with authority to approve or disapprove the application for additional time.

At page 9, the decision shall be published by the President on his judgment on this matter in 30 days and there is provision relating to extension and then there is at page 10 a certificate that is issued by the Secretary under the paragraph which will constitute conclusive evidence in any judicial or executive proceeding that all necessary Federal permits—this is essentially an amendment to State and Federal law and if it were to arise before this body through the appropriate committee channels it would probably come out of the Committee on the Judiciary.

In addition, the Secretary eschews the duty at (k) on page 10 or I guess it is (r), to notify the Government within any State affected, and require the Governor to present to the Secretary a compilation of significant actions required by State and local government.

This again is a duty which is imposed upon the Governor. All necessary application forms again must be submitted by the Governor.

The Secretary then incurs duty to provide assistance authorized by law to assist State and local authority.

Coming on down we find that the Secretary incurs a decision to consult with State and local authorities and to propose a decision to assist State and local authorities in coordinating their activities with actions of the Federal Government.

So, Mr. Chairman, there is a whole range of broad new responsibilities imposed on the Secretary of Energy not found elsewhere, either in the Defense Production Act or in the bill before us, which are quite complex, very obvious, and which involve a lengthy amount of work and which involve amendment either directly or indirectly of a large number of Federal, State, and local statutes dealing with the project and permitting the project.

There is also an extensive procedural responsibility on both the Secretary and one which is imposed on the Governor of the State in which the action would occur.

For that reason, Mr. Chairman, a Member of this body could not very well anticipate as would be required by the rules of germaneness that an amendment of this sweep and breadth could be visited upon us.

For that reason, I insist on my point of order and make a point of order that the amendment is not germane.

Mr. BAUMAN. Mr. Chairman, a further point of order.

The CHAIRMAN. The gentleman from Maryland will state his further point of order.

Mr. BAUMAN. Mr. Chairman, I make a point of order against the amendment for the following reasons: The bill before us, H.R. 3930, amends the Defense Production Act of 1950 and it does so by extending the authority of the act and also providing for the purchase of

synthetic fuels and synthetic chemical feed stock and for other purposes. An examination of the other purposes reveals nothing akin to the amendment before us. The amendment before us in effect seeks to apply the National Environmental and Policy Act of 1969, specifically on page 5 in subparagraph (d) to the facilities that would contract with the Government.

It appears to me that by attempting to do this, this is beyond the scope of the jurisdiction of this committee. It is within the scope of other committees' jurisdictions and certainly beyond the scope of the bill, which simply deals with contracts and purchases and not the environmental qualities or activities of the people who seek to contract with the Government.

Therefore, the amendment is not germane and beyond the scope of the bill.

The CHAIRMAN. Does the gentleman from Arizona (Mr. Udall) wish to be heard on the point of order?

Mr. UDALL. Yes, Mr. Chairman.

The pending bill creates authority to finance directly and indirectly synthetic fuel and chemical feed stocks, feedstock projects.

The thing that is killing this country and ripping up our efforts to get going with energy is that we get stalled and delayed in redtape; the Sohio pipeline, 5 years, we cannot get a decision yes or no.

What my amendment does is not to change any of the existing laws. It does not change any environmental protection laws or anything else, but it says we are going to have decisions. Within nine months after this is put on the fast track, we are going to get a yes or no decision on it.

Mr. BAUMAN. Mr. Chairman, may we have regular order? The gentleman is supposed to address the points of order.

Mr. UDALL. No, Mr. Chairman. This amendment simply supplements the existing statutory procedures to achieve expedited approval or disapproval of various authorities necessary for the completion of syn-fuel projects created under the authority of the legislation; so the subject matter of the amendment is germane to the subject of the pending legislation. The point of order ought to be rejected, Mr. Chairman.

The CHAIRMAN. The Chair is prepared to rule.

The bill before the committee bestows authority for loan guarantees to finance synthetic fuel or feedstock facility construction. The amendment of the gentleman from Arizona establishes a complex mechanism for expediting procedures for projects financed by loan guarantees under the bill.

The Chair is unable in response to the gentleman from Maryland to find any respect in which the amendment of the gentleman from Arizona would amend the National Environmental Protection Act, but merely provides that determinations made as to priority of synthetic projects eligible for expeditious review shall not be considered major Federal actions under that law.

In the opinion of the Chair, the totality of the Udall amendment constitutes essentially an expediting of procedures under authorities provided for in the bill and is, therefore, germane.

The Chair overrules the point of order.

**AMENDMENT OFFERED BY MR. BROWN OF OHIO AS A SUBSTITUTE FOR THE
AMENDMENT OFFERED BY MR. UDALL**

Mr. BROWN of Ohio. Mr. Chairman, I offer an amendment as a substitute for the amendment.

The Clerk read as follows:

Amendment offered by Mr. Brown of Ohio as a substitute for the amendment offered by Mr. Udall: Page 8, after line 13, insert the following new subsection:

"(g) (1) Each Federal officer, and agency having authority to issue any permit for, or to otherwise approve or authorize, the construction or operation of any facility which is to produce any synthetic fuel or synthetic chemical feedstock for which the President has contracted (or entered into a commitment to contract) under this section shall, to the maximum extent practicable—

"(A) expedite all actions necessary for the issuance of such permit, approval, or authorization, and

"(B) take final action thereon not later than 12 months after the date application for such permit, approval, or authorization is made.

After taking final action on any such permit, approval, or authorization, such officer or agency shall publish notification thereof in the Federal Register.

"(2) (A) Within 6 months after the date of the enactment of this section, and from time-to-time thereafter, the President shall—

"(1) identify those provisions of Federal law or regulations (including any law or regulation affecting the environment or land leasing policy) which the President determines should be waived in whole or in part to facilitate the construction and operation of any facility which is to produce any synthetic fuel or synthetic chemical feedstock for which the President has contracted (or entered into a commitment to contract) under this section; and

"(ii) submit any such proposed waiver to both Houses of the Congress.

"(B) The provisions of law so identified shall be waived with respect to the construction and operation of such facility to the extent provided for in such proposed waiver if 60 days of continuous session of Congress have expired after the date such notice was transmitted and neither House of the Congress has adopted during that period of continuous sessions a resolution stating in substance that such House disapproves of that waiver. The term 'continuous session of Congress' shall have the same meaning as given it in section 301 of this Act."

Redesignate the following provisions accordingly.

The CHAIRMAN. The Chair will inquire of the gentleman from Ohio if his amendment was printed in the Record.

Mr. BROWN of Ohio. Yes, it was, Mr. Chairman.

The CHAIRMAN. The gentleman from Ohio is recognized for 5 minutes in support of his amendment.

(Mr. Brown of Ohio asked and was given permission to revise and extend his remarks.)

Mr. WEAVER. Mr. Chairman, I reserve a point of order.

The CHAIRMAN. The gentleman from Oregon reserves a point of order.

Mr. BROWN of Ohio. Mr. Chairman, I would suggest that the gentleman's motion comes too late. I have been recognized for the debate and I have 5 minutes.

The CHAIRMAN. The gentleman from Oregon sought recognition before the gentleman had been recognized for debate and his reservation will be protected.

The gentleman from Oregon reserves a point of order.

The gentleman from Ohio is recognized for 5 minutes in support of his amendment.

Mr. BROWN of Ohio. Mr. Chairman, there are a number of barriers that this legislation hopes to address. There are three major barriers

that have prevented synthetic fuels development over the last few years. First, capital formation has been difficult.

Second, in the past as the result of price controls, the cost of producing the synthetic fuels was likely to be higher than prevailing market prices.

H.R. 3930 as presently drafted does address these first two but not the third. The third barrier is the institutional and regulatory process of environmental procedures and on Federal land use and leasing regulations that have caused great uncertainty and higher costs due to delay of synthetic fuel production.

Under current law the potential development of many synthetic fuels is unnecessarily prohibited and delayed.

When the majority leader, the gentleman from Texas (Mr. Wright) presented his map, it was noted on that map that many of the resources for synthetic fuels the gentleman hoped to see developed under this bill are now within lands that are owned and controlled by the Federal Government and constrained in their development. We have some statistics that come to us from the Office of Technology Assessment, April 1979, that indicate that about 72 percent of the oil shale of this country is now under Federal control; that a great deal of that land is not developable, because of Federal land use regulation. Thirty-one percent of the identified natural gas and 28 percent of the identified petroleum in this country is under federally controlled lands. If we are to develop a healthy synthetic fuels industry capable of supporting itself, the Federal Government's obligation must also include national consideration of other barriers completely within its domain, the institutional barriers. Only if the institutional barriers are removed can the development of synthetic fuels advance with any chance of growing into a higher percentage of our energy supplies.

Therefore, I urge your support of this amendment which provides an expedited means for the regulatory process to address the consideration of the environmental matters involved.

Then it provides one other thing, that is, that the President be given the right to waive laws, subject to congressional review, of similar nature to the procurement law, that is, the environmental and the land use laws. If we do not like the President's determinations in the Congress, then we get a one-House veto of his effort to waive those laws.

Now, what that means is that when a project is identified for development and the President lets a contract on that project he can say, "But the trouble is that resource or plant is going to be in an area where we have some environmental or land use laws or other laws that prohibit the development; never mind the fact that we are going to give them the money." The President can then waive those obstructive laws and regulations, subject to congressional veto, and let the project proceed in the national interest.

He will be telling us that he wants this one time for this one project to waive that law. If we do not like that waiver, we get the chance to come back and say, "No, Mr. President, Congress does not want to waive that law."

The other part of the amendment provides for the expedited consideration by regulator agencies of the kind of delaying legal chal-

lenges that have been made so frequently under the environmental and the land use laws.

This amendment is adapted from from what we did in the Commerce Committee to try to expedite the Sohio pipeline project from Long Beach, Calif., to Midland, Tex., and what Congress enacted into law in the Public Utilities Regulatory Policies Act, a part of the National Energy Act enacted into law last year. The language tracks exactly that legislation, and is an appropriate method to address the need that we have to develop synthetic fuels. It is appropriate law for us to pass at this time in this legislation.

Mr. McKINNEY. Mr. Chairman, will the gentleman yield?

Mr. BROWN of Ohio. I yield to the gentleman from Connecticut.

Mr. McKINNEY. Mr. Chairman, we had the Sohio problem and the Northern Tier pipeline problem, and this very recent amendment offered by the gentleman should be passed. It has a congressional veto, so there is a total safety valve within the system.

I was one of the original cofounders of the environmental study group in this Congress, and I will state that we are not stepping on the environment in this amendment. We are making sure the Defense Production Act will work and work expeditiously.

Mr. BROWN of Ohio. Mr. Chairman, I thank the gentleman from Connecticut (Mr. McKinney), because he is an authoritative spokesman for environmental issues.

I have no desire to argue the environmental questions with this amendment. The fact of the matter is, we will argue the environmental questions if the President tries to waive anything. But our objective is to assure that, if it is important that we pass this bill, if we put taxpayer money up and guarantee loans to plants and guarantee the price of what has been developed in synthetic fuels as a result of this bill, we have the opportunity to see that it is not stopped by legal tactics of delay under some other piece of legislation that may just kill the whole project.

Mr. CLAUSEN. Mr. Chairman, will the gentleman yield?

Mr. BROWN of Ohio. I yield to the gentleman from California.

(Mr. Clausen asked and was given permission to revise and extend his remarks.)

Mr. CLAUSEN. Mr. Chairman, in listening to the reading of the amendment, it strikes me that this amendment essentially has been modeled after the legislation we advanced through both the Committee on Interior and Insular Affairs and the Committee on Interstate and Foreign Commerce on which the gentleman services. So I am going to support this.

So, Mr. Chairman, I support the amendment offered by the gentleman from Ohio (Mr. Brown) and commend him for his initiative in this matter. It is my understanding that this amendment is very similar to the provisions of a bill expediting construction of the so-called Sohio pipeline project passed earlier this year by the House Interior Committee which Mr. Udall and I cosponsored. I believe that project gave us a valuable lesson in how excessive institutional and legal barriers can thwart action which is crucial to our meeting the goal of energy independence.

Mr. Chairman, I am informed that potentially this may be ruled as nongermane. I also understand that the gentleman from Ohio will

■ offer another amendment to accomplish a similar result. I support that amendment also as crucial to the development of a healthy synthetic fuels industry, which will become an integral part of a national energy supply, distribution, and conservation effort aimed at reducing our dependence on unreliable and costly sources of foreign oil.

■ The amendment directs each Federal officer and agency having authority to issue permits, approve or authorize projects for the construction of facilities to produce synthetic fuel or synthetic chemical feedstock for which the President has contracted shall expedite all actions necessary for the issuance of permits, approval or authorization and take action not later than 12 months after the date of application.

■ This is designed to avoid the unnecessary redtape and bureaucratic delay that has plagued our progress in energy matters in the past.

■ Recently I spoke to some concerned friends and constituents in Santa Rosa, Calif., about the energy problems and their impact on the economy.

■ I said then and I say now, "It's time to bite the bullet." The stakes of uncertainty are far too high. With this legislation, which represents a congressional initiative, we, in the Congress are determined to move and expedite the development of a partnership between Government and the private energy sector directed toward applying our scientific technology and engineering expertise to bring energy self-sufficiency for the United States closer to reality.

Also, the Press Democrat in Santa Rosa editorialized with a strong support of our efforts to create an energy partnership between Government and the private energy sector to get on with the job in support of what we are doing today.

As the President of France has said, "On the day the United States will really start to move in the production of synthetic fuels, there will be a major change in the world situation."

The OPEC countries once again are going to use its tremendous leverage over international oil supplies to jack up the price of petroleum, adding economic misery worldwide and setting the stage for a combination inflation-recession that could plunge the industrial nations of the Western World into chaos.

Yes, the time is now. This is the time to bite the bullet and move forward on synthetic fuels.

Mr. CLAUSEN. Mr. Chairman, the rapid progress of this legislation, the Synthetic Fuels Act, through the House of Representatives is an indication of the potential of this alternative energy source.

■ This bill technically requires the Department of Defense to purchase synthetic fuels for its energy requirements, but will have the effect of providing additional incentives for expansion of the domestic synthetic fuels industry.

The fact that this measure guarantees a market for synthetic fuel supplies and additionally provides assistance to private sector firms undertaking to produce synthetic fuel will permit an American industry, that is now in its infancy, to mature and help meet some of the energy shortfall we now face.

Most of the technology for the development of synthetic fuels has been discovered and is now available. The gap between oil and synthetic prices continues to close and this bill will help make this alternative energy supply more economically feasible.

Recently the Napa Register in my congressional district editorialized in favor of attacking the synthetic fuels issue. I think excerpts of that editorial would be of use to my colleagues in considering the bill before us today:

What we need now is synthetic fuel or a new source of oil. We know that the possibilities are there, ranging from alcohol derived from grain, to various synthetic derived from coal, to the extraction of oil from shale deposits. None of them needs a Los Alamos laboratory to solve any technological problems. They need a commitment to production.

An oil company executive mentioned recently that the price of gasoline will have to reach \$1.50 a gallon before it is economical for a company to invest in one of these new fuel sources. The question remains whether it is prudent to wait until the OPEC hook has twisted that deep—or deeper if our demand for imported oil does not slacken.

Our wartime synthetic rubber plants were financed by the government and operated on a management-fee basis by rubber and petro-chemical companies. The companies bought most of the plants from the government after the war. We do not suggest that the government start building synthetic fuel plants today. It shouldn't have to.

We can suggest that the longstanding partnership of government and industry in energy research be expanded into the area of joint financing of the production of one or more alternative fuels. The role of the government subsidy would be to lower the price-threshold that must be crossed before those fuels become competitive with oil and gas. The plan could call for the recovery of the government investment over the long term.

This would entail a change of course for Mr. Carter, and no little political risk. He has been following the easy, popular route of attacking the oil companies for their high profits. He would not have to invite their cooperation in a direct partnership with government in a dramatic form of "plowback" of some of those profits.

In World War II the government provided only the trigger and coordination for the quick production of synthetic rubber. The management and technical expertise came from private industry. Mr. Carter's woebegone efforts to respond to the energy crisis may finally get somewhere when he sees the parallel today.

The administration is looking for a way to avert the crippling economic emergency that our heavy dependence on imported oil could create. A dramatic commitment to production of synthetic fuel might be the answer, and like it or not, the people now in the business of producing and distributing fuel—mainly the oil companies—are in the best position to bring it off.

Yes, Mr. Chairman, we, in the Congress are acting boldly today as our response to the energy crisis and all the uncertainties it entails.

We are determined to move forward, because we have lost 2 years, because of the administration's intransigence and ambivalence. We are forcing a new partnership between Government and the private sector, but also between the Executive and the Congress. * * * The American people and the free world will be the beneficiaries of our action. I am proud to be a part of this move.

POINT OF ORDER

The CHAIRMAN. Does the gentleman from Oregon (Mr. Weaver) insist on his point of order?

Mr. WEAVER. I do, Mr. Chairman.

The CHAIRMAN. The Chair will hear the gentleman.

Mr. WEAVER. Mr. Chairman, the amendment says the President shall identify provisions of Federal law or regulations. They are unidentified law or regulations, other than to say they deal with the environment and land use policy.

If these provisions of law so identified are submitted to the Congress, they will be waived. In other words, it affects law outside the bill we have before us. It amends unidentified law.

The CHAIRMAN. Does the gentleman from Ohio (Mr. Brown) wish to be heard on the point of order?

Mr. BROWN of Ohio. I do, Mr. Chairman.

I first rise, Mr. Chairman, to make a point of order against the point of order of the gentleman from Oregon (Mr. Weaver), and I would cite to the Chair Deschler's Procedure, page 532, paragraph 35.13, which says:

A point of order against the germaneness of an amendment must be made or reserved immediately after the amendment is read and comes too late after the proponent of the amendment has been recognized and permitted to revise and extend his remarks.

The CHAIRMAN. The gentleman will suspend.

Mr. BROWN of Ohio. Mr. Chairman, I would submit to the Chair that the gentleman—

The CHAIRMAN. The gentleman will suspend.

The Chair has already ruled on that point of order, and had determined that the gentleman from Oregon was on his feet seeking to reserve the point of order in a timely manner, before the unanimous consent request was granted, and the gentleman is recognized to be heard on the point of order of the gentleman from Oregon.

Mr. BROWN of Ohio. Mr. Chairman, am I incorrect that I was recognized and given permission to revise and extend my remarks before the Chair gave recognition to the gentleman from Oregon?

The CHAIRMAN. The Chair ruled at that time that the gentleman from Oregon was on his feet and had properly reserved the point of order.

Mr. BROWN of Ohio. Mr. Chairman, I made no point of order at that time.

The CHAIRMAN. The gentleman was recognized to be heard on the point of order made by the gentleman from Oregon.

Mr. BROWN of Ohio. Of course, Mr. Chairman, we honor the decision of the Chair.

Mr. Chairman, I rise in opposition to the point of order raised against my amendment.

My amendment is clearly germane not only to the bill before us but also to the Defense Production Act which the bill amends. On page 5 of this very bill, lines 17 through 21, language similar to that contained in my amendment can be found, and I quote:

(c) Purchases, commitments to purchase, and resales under subsection (b) may be made without regard to the limitations of existing law, for such quantities, and on such terms and conditions, including advance payments, and for such periods as the President deems necessary . . .

And then it goes on, and the quotation is ended.

That relates to what I offer in my amendment with reference to the President and his opportunity to waive existing law.

Similar language to that in my amendment providing for waiver of existing laws can be found in title 3 of the Defense Production Act which section 3 of H.R. 3930 would amend.

Mr. Chairman, the Defense Production Act is a very broad bill inasmuch as it deals with our national defense. Title 50, United States Code, section 2091, says, and I quote:

Without regard to the provisions of law relating to the making, performance, amendment, or modification of contracts.

My amendment is a broad waiver provision, but it is no broader than those waiver provisions found in the Defense Production Act and in section 3 of H.R. 3930, which again is designed to amend the Defense Production Act.

Therefore, Mr. Chairman, I would argue to the Chair that my amendment is germane.

The CHAIRMAN. Does the gentleman from Oregon (Mr. Weaver) desire to be heard further on the point of order?

Mr. WEAVER. Mr. Chairman, I just want to say that the debate pointed out that those waivers were to procurement law and not to other laws. This was established in debate earlier in this bill.

Mr. BROWN of Ohio. Mr. Chairman, if I may be heard further, I would submit to the Chair in response to that comment that the waivers in the Defense Production Act are waivers of a general nature and are not limited to the procurement law in and of itself. They are waivers of a general nature.

The reason for the necessity of my amendment is to be sure that in this piece of legislation, which follows by a considerable time the original Defense Production Act and which then would require us to reenact that waiver because there has been intervening legislation not addressed by the Defense Production Act, it would be necessary to have that language or that legislation covered by a subsequent waiver. That is the reason for this amendment at this time.

Mr. Chairman, otherwise, the President in the Defense Production Act would have the right to waive anything that preceded the Defense Production Act, and there would be a legal question whether or not he would have a right to waive things subsequent to the Defense Production Act.

Therefore, my amendment is appropriate to embrace that period since the Defense Production Act was passed and up to the present date in order to make clear what the purpose of the Defense Production Act is.

The CHAIRMAN. (Mr. Studds). The Chair is prepared to rule.

The waivers of existing law found both in the amendment offered by the gentleman from Arizona (Mr. Udall) and in the bill and statute itself are, in the judgment of the Chair, waivers with respect to a very narrow class of existing law. The statute itself makes reference to provisions of law relating to the "making, performance, amendment, or modification of contracts," a specific reference to a narrow phase of law.

The Chair would cite Deschler's Procedure, chapter 28, section 33:

To a bill temporarily amending for one year an existing law establishing price supports for several agricultural commodities, an amendment waiving the provisions of another law relating to price supports for another agricultural commodity was construed to directly change a law not amended by the pending bill and thus to include a commodity outside the class of those covered by the bill and was ruled not germane.

The amendment offered by the gentleman from Arizona (Mr. Udall) does not purport to waive all inconsistent Federal statutes. The substitute offered by the gentleman from Ohio (Mr. Brown) would permit waiver of all provisions of law within the jurisdiction of other committees and is, in the opinion of the Chair, therefore, in effect a temporary prospective repeal of any other law which otherwise would interfere with the construction of any facility financed by this bill, and the Chair sustains the point of order.

AMENDMENT OFFERED BY MR. BROWN OF OHIO AS A SUBSTITUTE FOR THE
AMENDMENT OFFERED BY MR. UDALL

The CHAIRMAN. For what purpose does the gentleman from Ohio (Mr. Brown) seek recognition?

Mr. BROWN of Ohio. Mr. Chairman, I offer an amendment which has been printed in the Record.

The CHAIRMAN. The Chair would inquire, is it an amendment to the amendment?

Mr. BROWN of Ohio. It is an amendment to the amendment, Mr. Chairman.

The CHAIRMAN. To the amendment offered by the gentleman from Arizona (Mr. Udall)?

Mr. BROWN of Ohio. It is, Mr. Chairman.

The CHAIRMAN. The Clerk will report the amendment.

The Clerk began the reading of the amendment.

Mr. BROWN of Ohio (during the reading). Mr. Chairman, I ask unanimous consent to revise and extend my remarks.

The CHAIRMAN. The Clerk will report the amendment.

The Chair will inquire of the gentleman from Ohio (Mr. Brown), is this an amendment or a substitute amendment?

Mr. BROWN of Ohio. It is a substitute amendment, Mr. Chairman.

Mr. DINGELL. Mr. Chairman, I reserve a point of order on the amendment.

Mr. BROWN of Ohio. Mr. Chairman, I would ask whether or not I have been recognized on my amendment.

The CHAIRMAN. No, the gentleman has not yet been recognized.

Mr. BROWN of Ohio. I will wait for the Chairman to make that recognition.

The CHAIRMAN. The Chair is awaiting the reporting of the amendment by the Clerk.

The Clerk read as follows:

Amendment offered by Mr. Brown of Ohio to the amendment offered by Mr. Udall: Page 8, after line 13, insert the following new subsection:

"(g) Each Federal officer and agency having authority to issue any permit for, or to otherwise approve or authorize, the construction or operation of any facility which is to produce any synthetic fuel or synthetic chemical feedstock for which the President has contracted (or entered into a commitment to contract) under this section shall, to the maximum extent practicable—

"(1) expedite all actions necessary for the issuance of such permit, approval, or authorization, and

"(2) take steps designed to result in final action thereon not later than 12 months after the date application for such permit, approval, or authorization is made.

After taking any such action, such officer or agency shall publish notification thereof in the Federal Register.

Redesignate the following provisions accordingly.

The CHAIRMAN. The Chair will inquire of the gentleman from Ohio (Mr. Brown) whether his amendment has been printed in the Record in this form?

Mr. BROWN of Ohio. Mr. Chairman, the amendment was printed in the Record in a fuller form. But in view of the fact that the Chair made a point of order against a portion of the amendment, this part of the amendment will now be, I think, germane.

The CHAIRMAN. The Chair would advise the gentleman from Ohio that, under the rule, the gentleman is indeed entitled to offer the amendment, but the gentleman is not entitled to 5 minutes, since his amendment is not in the Record precisely in the form offered.

Does the gentleman from Michigan (Mr. Dingell) insist on his point of order?

Mr. BROWN of Ohio. Mr. Chairman, I would like to proceed for 20 seconds.

The CHAIRMAN. No. The gentleman's time has expired.

PARLIAMENTARY INQUIRY

Mr. BROWN of Ohio. Mr. Chairman, I have a parliamentary inquiry.

The CHAIRMAN. The gentleman will state it.

Mr. BROWN of Ohio. Mr. Chairman, will there then be a vote on this amendment, without an explanation by anyone of what the amendment contains, or is it possible to have the amendment read again, since it is quite brief, so that the Members may understand what is in the amendment?

The CHAIRMAN. The Chair would advise the gentleman that any time for debate or explanation would have to be obtained by unanimous consent.

Mr. BROWN of Ohio. Mr. Chairman, I would be happy to ask for unanimous consent.

The CHAIRMAN. What is the gentleman asking unanimous consent for?

Mr. BROWN of Ohio. Mr. Chairman, has objection been heard to my unanimous-consent request?

The CHAIRMAN. What is the gentleman's unanimous-consent request?

Mr. BROWN of Ohio. To have 1 minute to explain the amendment.

The CHAIRMAN. The gentleman from Ohio (Mr. Brown) asks unanimous consent that he be permitted 1 minute to explain the amendment.

Is there objection to the request of the gentleman from Ohio?

There was no objection.

The CHAIRMAN. The gentleman from Ohio is recognized for 1 minute.

Mr. BROWN of Ohio. I thank the Chair.

Mr. Chairman, I thank the cordiality of my colleagues at this late hour. It has taken an hour for me to try to get my amendment offered. I would say to the Members that the amendment merely is now an effort to get a very brief, fast track for the consideration of any environmental challenges or any land use challenges that people want to

make it inhibit, delay, or obstruct these synthetic fuels projects which we are so interested in advancing. It is not complicated. It did not take 11 pages; it did not take about 15 minutes to read. Mine is a very simple amendment. It can be found on page H5090 of the Record. It is the first part of my previous, longer amendment. I would say to the Members that it has no tricks in it. It is very direct and not the complicated amendment offered by the gentleman from Arizona, of which I do not think anybody knows the contents.

Mr. OTTINGER. Mr. Chairman, will the gentleman yield?

Mr. BROWN of Ohio. I yield to the gentleman from New York.

Mr. OTTINGER. Mr. Chairman, does the gentleman's amendment waive any existing laws?

Mr. BROWN of Ohio. It waives no existing laws. That was ruled not germane by the Chair after awhile.

The CHAIRMAN. The time of the gentleman from Ohio (Mr. Brown) has expired.

Does the gentleman from Michigan (Mr. Dingell) insist on his point of order?

Mr. DINGELL. No, Mr. Chairman.

I just want to say that I recognize this because I had drafted the same amendment myself.

The CHAIRMAN. The question is on the amendment offered by the gentleman from Ohio (Mr. Brown) to the amendment offered by the gentleman from Arizona (Mr. Udall).

The question was taken; and on a division, demanded by Mr. Udall, there were—ayes 46, noes 36.

So the amendment to the amendment was agreed to.

The CHAIRMAN. The question is on the amendment offered by the gentleman from Arizona (Mr. Udall), as amended.

The amendment, as amended, was agreed to.

The CHAIRMAN. Are there other amendments to section 3?

AMENDMENTS OFFERED BY MR. M'KAY

Mr. McKAY. Mr. Chairman, I offer an amendment, and I ask unanimous consent that the amendment be considered as read and printed in the Record.

The CHAIRMAN. Is there objection to the request of the gentleman from Utah?

Mr. BAUMAN. Mr. Chairman, reserving the right to object, the difficulty that we all have in this very important legislation which is being enacted here tonight is that, because of time limitation, we just do not know what the contents of the amendments are. Absent any intelligent knowledge of what we are voting on, we will have to hear the amendments read.

Mr. Chairman, I object.

The CHAIRMAN. Objection is heard.

The Clerk will report the amendment.

The Clerk read as follows:

Amendment offered by Mr. McKay: Page 10, line 4 add the words "tar sands" after the word "shale."

The CHAIRMAN. The Chair will inquire of the gentleman from Utah (Mr. McKay) whether his amendment has been printed in the Record?

Mr. McKAY. It has not been, Mr. Chairman.

The CHAIRMAN. The question is on the amendment offered by the gentleman from Utah (Mr. McKay).

The amendment was agreed to.

The CHAIRMAN. Are there other amendments to section 3?

AMENDMENT OFFERED BY MR. WIRTH

Mr. WIRTH. Mr. Chairman, I offer an amendment.

The Clerk read as follows:

Amendment offered by Mr. Wirth: Page 10, line 6, insert after the first period the following new sentence: "Such terms also include methane produced from such sources as coal seams, geopressurized brine, tight sands and Devonian shale."

The CHAIRMAN. Does the gentleman's amendment appear in the Record?

Mr. WIRTH. Mr. Chairman, this has been accepted by both sides, but it has not been printed in the Record.

Mr. Chairman, this amendment will help this county realize the potential of unconventional gas.

NEP II—on page IV—29—cites the following figures as the resource base for unconventional gas:

	<i>Trillion cubic feet</i>
Tight sands formations.....	50-420
Devonian shale.....	25-400
Cial bed methane.....	50-700
Geopressurized methane.....	5, 000-63, 000

One trillion cubic feet of gas is equivalent to 500,000 barrels per day of oil for a year.

Under a business as usual scenario, none of these are expected to yield much production because of the high production costs. This is because the extraction techniques essentially put them in the categories of synfuels.

The first three require massive hydraulic fracturing of the rock or coal to extract the methane, the latter requires extracting it from pressurized salt water at over 250° F. Nevertheless, recent studies for DOE indicate that at prices above normal natural gas prices, but below the cost of many synfuels, very large volumes of these gases could be produced quickly. By allowing them to compete, we can help provide America with more energy for less money.

A recent (1978) four volume study of unconventional gas done by Lewin and Associates for DOE gave the following estimates for production (given in oil equivalents):

Price per barrel	Barrels per day	
	1985	1990
At \$12.....	700, 000	1, 150, 999
At \$21 plus continued U.S. R. & D.....	2, 000, 000	4, 150, 000

By stimulating the development of this gas, we can displace an additional 3 million barrels per day of oil use, but it will not occur unless we guarantee producers a price above current oil and gas prices. Since

DOE estimates most synthetic oil plants at \$30 to \$40 per barrel, this gas may be our best bargain, and should be allowed to compete for the Federal purchase program.

Currently, considerable quantities of crude oil and natural gas are used interchangeably, primarily for industrial heat and generation of power. One means for reducing the use of imported oil for this purpose is to substitute unconventional natural gas. Such a step could provide an important interim step in reducing the pressure on world oil supplies and domestic imports until synthetic liquids begin to be produced in major quantities.

The four sources of unconventional gas—tight sands, Devonian shales, methane from coal seams and geopressured aquifers—could provide from 1 Tcf to 5 Tcf—equivalent to 500,000 to 2,500,000 barrels per day—per year in the 1985 to 1990 period, depending on the allowed price and level of gas recovery technology.

Currently, while Devonian shale, methane from coal seams and geopressured aquifers are deregulated, the largest potential source—tight gas—is not. Releasing tight gas from regulations and elevating all four unconventional gas sources to synthetic fuel status would accelerate the development of this resource and provide a secure, low cost, near-term alternative to a portion of imported oil.

The domestic unconventional gas resources, while large, are expensive to produce; but they are much less capital intensive and may have slightly lower unit costs per BTU than synthetic alternatives.

An accelerated posture towards synthetics should include due consideration of unconventional gas since:

Efficiently working energy markets are dependent on an orderly sequence progressing from lower to higher cost options.

In general, unconventional gas appears to be a scientifically and economically more rapid supply option than synthetics from coal or shale; under advanced gas recovery technology, it can make a major contribution between 1985 and 1990.

Focused and accelerated initiatives toward unconventional gas have the potential of providing considerable additional gas by 1990 over the amounts that may otherwise be achieved. The estimated impact in 1990, depending on policy choices is as follows:

Base case—phased deregulation, 1 to 2 Tcf/yr. (0.5 to 1 million barrels per day).

Consideration of unconventional gas as synthetic fuel (est. price at \$3.60/Mcf), 2 to 3 Tcf/yr. (1 to 1.5 million barrels per day).

Incorporation of advanced recovery technology and synthetic fuel price, 3.5 to 5 Tcf/yr. (1.75 to 2.5 million barrels per day).

POINT OF ORDER

Mr. DINGELL. Mr. Chairman, I make a point of order against the amendment.

The CHAIRMAN. The gentleman will state his point of order.

Mr. DINGELL. Mr. Chairman, the bill deals with production of synthetic fuels. The amendment offered by my good friend, the gentleman from Colorado, deals with production from conventional sources of hydrocarbons from within the Earth. Given that circumstance, regretfully, I observe that the amendment does not conform with the requirements of the rules relating to germaneness.

The bill also deals with creating synthetic feedstocks. The particular section, section 3, with which we deal at this time, deals with synthetic feedstocks.

The proposal that the gentleman from Colorado (Mr. Wirth) has before us deals with a broad series of productions from conventional or semiconventional sources of hydrocarbon from within the Earth and, as such, it is therefore not germane.

The CHAIRMAN. Does the gentleman from Colorado (Mr. Wirth) wish to be heard on the point of order?

Mr. WIRTH. Yes, Mr. Chairman.

The CHAIRMAN. The Chair recognizes the gentleman from Colorado.

Mr. WIRTH. Mr. Chairman, at the bottom of page 9, line 24 in the bill is the definition of what is intended by the committee to be covered by the legislation in H.R. 3930. That definition in the amendment which I have offered is broadened to include coverage by the provisions of this act for hard-to-obtain natural gas.

The purpose of the legislation, as I understand the gentleman from Pennsylvania and the committee, is to increase production of energy and the area of hard-to-get natural gas. That which is described in the amendment which I offered clearly is a matter of the kind of stimulus that the gentleman from Pennsylvania and members of the committee have defined in the bill, and in broadening the definition offered by the committee, this is consistent with the purposes of H.R. 3930.

The CHAIRMAN. The Chair is prepared to rule.

The section of the bill which defines synthetic fuels, page 9, line 24 reads as follows.

The term synthetic fuels—“ . . . means fuels and chemical feedstocks produced by the conversion of renewable and nonrenewable resources, including, but not limited to, . . . ” a consecutive category of resources.

In the opinion of the Chair, the definition is sufficiently broad as to allow the amendment offered by the gentleman from Colorado.

The Chair overrules the point of order.

The question is on the amendment offered by the gentleman from Colorado (Mr. Wirth).

The question was taken; and on a division (demanded by Mr. Wirth) there were—ayes 28, noes 30.

So the amendment was not agreed to.

The CHAIRMAN. Are there additional amendments to section 3?

AMENDMENT OFFERED BY MR. GORE

Mr. GORE. Mr. Chairman, I offer an amendment.

The Clerk read as follows:

Amendment offered by Mr. Gore: Page 10, line 6, strike out the quotation marks and the period which follow and insert in lieu thereof the following new sentence: “Such terms includes fuels and chemical feedstocks produced from tar sands and heavy oils if the hydrocarbon content thereof has a gravity of 15 degrees or less (API). For purposes of applying the preceding sentence, the President may substitute a higher gravity rating (API) for 15 degrees in any case in which he determines that the application of the higher gravity rating would further the purposes of this section.”

Mr. GORE (during the reading). Mr. Chairman, I ask unanimous consent that the amendment be considered as read and printed in the record, and that I be able to explain it.

The CHAIRMAN. Is there objection to the request of the gentleman from Tennessee?

Mr. ROUSSELOT. Mr. Chairman, I object.

The CHAIRMAN. Objection is heard.

The Clerk will read.

(The Clerk concluded reading the amendment.)

(Mr. Gore asked and was given permission to revise and extend his remarks.)

Mr. GORE. Mr. Chairman, I introduce this amendment on behalf of the gentleman from Michigan (Mr. Stockman) and myself. We have worked it out previously with the chairman of the committee, the gentleman from Pennsylvania (Mr. Moorhead), and with the distinguished chairman of the Subcommittee on Energy and Power, the gentleman from Michigan (Mr. Dingell).

Mr. Chairman, tar sands and heavy crudes have been the neglected stepchildren of the synthetic fuels euphoria. These oils have been at the top of the oil industry's waiting list for development for years—always at the edge of economic viability, but always passed over in the end in favor of extensive exploration for the rare large strike. Ironically, being "almost economic" has caused the heavy crudes to be passed over while funds were made available for the more exotic forms of crushing shale and coal to squeeze out oil or painstakingly fermenting plants for a trickle of alcohols. The deposits are massive: California alone has an estimated 61 billion barrels of heavy oils in reserves which are virtually untapped; Texas has 33.7 billion barrels, and 27 to 30 billion barrels are locked in Utah's tar sands. But oil companies candidly admit that they will not begin production of these massive deposits until oil reaches \$30 a barrel.

The mandate of House Resolution 3930 is to increase domestic production of fuel oils. But while recognizing that such a declaration of independence will cost money, the bill neglects to include the domestic resources which are likely to give us the greatest return on the smallest investment.

I propose an amendment which will reap these harvests, but will limit Government price incentives to oils which are not recoverable in their natural state through a well by conventional oil production techniques. At present technology levels, these oils must be mined—either on the surface or by using in situ mining techniques. The processes are uncomplicated, compared to the chemical conversion of coal or shale to oil, but expensive compared to conventional oil production. If the Government does not provide the kind of incentives envisioned by 3930, these vast reserves will remain untapped.

Beyond the U.S. borders, but within the Western Hemisphere, the figures on these heavy and superheavy crudes are staggering. Canada has 600 billion barrels of oil in tar sands—twice the proven oil reserves of the Middle East—and Venezuela has quantities estimated between 500 billion barrels and 3 trillion barrels. Taken together, these sources could fuel the free world for a century. The Canadian Government has taken the lead by becoming a one-third owner of the mammoth Syncrude tar sands plant in Alberta, which is expected to supply one-third of Canada's energy needs by 1985.

It is time we recognize this great wealth of our Nation and fellow nations of the Western Hemisphere. It is essential that we begin to

mine our domestic resources of tar sands and heavy crudes, to share our technology with Central and South America for mining super heavy crudes, and to learn from the experiences of neighboring Canada. It is time to make unconventional oils a member of the family of synthetic fuels which will strengthen our Nation in the years to come.

The **CHAIRMAN**. The question is on the amendment offered by the gentleman from Tennessee (Mr. Gore).

The amendment was agreed to.

AMENDMENT OFFERED BY MR. OTTINGER

Mr. OTTINGER. Mr. Chairman, I offer an amendment.

The Clerk read as follows:

Amendment offered by Mr. Ottinger: Page 2, line 19, after "(a)" insert "(1)". Page 2, after line 25, insert the following new paragraph:

(2) Section 301(d) of the Defense Production Act of 1950 (50 U.S.C. App. 2091) is amended by adding at the end thereof the following new sentence: "Notwithstanding the preceding sentence, the Department of Energy and the Tennessee Valley Authority may use for the purposes of this section only funds specifically appropriated or allocated to each such agency for such purposes pursuant to this Act."

Page 3, line 7, insert "(A)" before "\$38,000,000".

Page 3, line 15, strike out the period and insert in lieu thereof the following: ", and (B) \$250,000,000, except with the approval of Congress. Any notice under this paragraph relating to obligations of the Department of Energy or the Tennessee Valley Administration shall also be transmitted to the appropriate authorizing committees of the Senate and the House of Representatives."

Page 3, line 20, after "period." insert the following new sentence: "Such resolution shall be subject to the procedures specified in subsection (f) of section 551 of the Energy Policy and Conservation Act, except that any reference in that subsection to any resolution or resolution with respect to an energy action shall be considered to refer to a resolution pursuant to this section."

Mr. OTTINGER (during the reading). Mr. Chairman, I ask unanimous consent that the amendment be considered as read and printed in the Record.

The **CHAIRMAN**. Is there objection to the request of the gentleman from New York?

Mr. MOORHEAD of Pennsylvania. Reserving the right to object, Mr. Chairman, does the gentleman have a copy of the amendment?

Mr. OTTINGER. We gave both the majority and the minority copies of the amendment.

Mr. MOORHEAD of Pennsylvania. Further reserving the right to object, Mr. Chairman, I have not seen the amendment. I do not know whether it should be read or not.

Mr. ROUSSELOT. I reserve the right to object, Mr. Chairman.

The **CHAIRMAN**. The gentleman from Pennsylvania (Mr. Moorhead) has the right to object.

Mr. ROUSSELOT. I object, Mr. Chairman.

The **CHAIRMAN**. The objection is heard.

The Clerk will read.

(The Clerk concluded reading the amendment.)

Mr. MOORHEAD of Pennsylvania. Mr. Chairman, I reserve a point of order on the amendment.

The **CHAIRMAN**. The Chair will inquire of the gentleman from New York (Mr. Ottinger) whether this amendment appeared in the Record.

Mr. OTTINGER. It did, Mr. Chairman.

The CHAIRMAN. The gentleman from New York (Mr. Ottinger) is recognized for 5 minutes.

Mr. OTTINGER. Mr. Chairman, I ask unanimous consent that the last paragraph be stricken.

The CHAIRMAN. Is there objection to the request of the gentleman from New York?

There was no objection.

Mr. OTTINGER. Mr. Chairman, this is a last attempt to try and get some reasonable financial control over the financing device that is most risky with respect to financing synthetic fuels, and that is loan guarantees. It restores the requirement of existing law that any loan guarantee over \$250 million requires the approval of Congress.

Mr. Chairman, the amendment also makes it clear that in the case of the Department of Energy and TVA, funds otherwise appropriated for these agencies for the purposes such as solar energy, conservation, enforcement, and nuclear research and development would not be available for such guarantees under this legislation. By adding DOE and TVA to the section, section 301(d) applies, which would let DOE use such appropriation for such guarantees. I am sure that the Banking Committee did not intend this effect. That committee does not want to raid these funds to achieve a synfuels program.

Mr. Chairman, certainly loan guarantees which are completely off budget, that exceed a quarter of a billion dollars ought to have some scrutiny. There is just no telling what kind of arrangements the Department of Energy may enter into piling one kind of subsidy on top of the other.

This provides reasonable protection, I urge its adoption.

The CHAIRMAN. Does the gentleman from Pennsylvania (Mr. Moorhead) insist on his point of order?

Mr. MOORHEAD of Pennsylvania. Mr. Chairman, I withdraw my point of order.

The CHAIRMAN. Does the gentleman from Pennsylvania wish to be heard in opposition to the amendment?

Mr. MOORHEAD of Pennsylvania. Mr. Chairman, I rise in opposition to the amendment.

This is another amendment intended to make it more difficult to achieve our goal of getting production. It says under the loan guarantee program that our one-House veto is not sufficient. If we have a loan guarantee program, we have to pass a bill through both Houses of Congress.

I think the actions we have taken all day indicate how difficult it is to get one bill through one House of Congress. If we want to have energy production and defense production, we should defeat this amendment. I hope that the House will support the committee which I believe reported a reasonably balanced bill with clear protection by a one-House veto if it exceeds \$38 million.

Mr. McKINNEY. Mr. Chairman, will the gentleman yield?

Mr. MOORHEAD of Pennsylvania. I would like to yield to the ranking member of the subcommittee.

Mr. McKINNEY. I do not think that the Chairman should have withdrawn his point of order, quite frankly. I am not an attorney, but it

seems to me rather clear that there is a change in the whole meaning of the bill here if we require a specific set-aside for the Defense Production Act activities of those agencies. I think the congressional veto that we have passed covers the act and I would urge rejection of the amendment. It is just going to be too hard, as the gentleman says, to get this through twice when it really only has to go through once. That is what we are doing.

Mr. MOORHEAD of Pennsylvania. If I may reclaim my time, we examined this proposition and decided that the way to protect congressional interests and congressional oversight is by the one-House-veto route, and I believe that is adequate.

This amendment is obstructive and it should be defeated.

The CHAIRMAN. The question is on the amendment offered by the gentleman from New York (Mr. Ottinger).

The amendment was rejected.

AMENDMENT OFFERED BY MR. M'KAY

Mr. McKAY. Mr. Chairman, I offer an amendment.

The Clerk read as follows:

Amendment offered by Mr. McKay: Page 4, lines 23 and 24, after "shall" strike "attempt to".

Page 5, line 9, after "(c) and (d)" strike "may-" and insert "shall".

Mr. McKAY (during the reading). Mr. Chairman, I ask that the amendment be considered as read and printed in the Record.

The CHAIRMAN. Is there objection to the request of the gentleman from Utah?

Mr. BAUMAN. Reserving the right to object, Mr. Chairman—

The CHAIRMAN. The gentleman from Maryland reserves the right to object.

Mr. BAUMAN. Mr. Chairman, I yield to the gentleman to give us an explanation of this lengthy amendment that I think ought to be read.

Mr. McKAY. Mr. Chairman, in answer to the gentleman, this is a very simple amendment arising from the experience we had in the Interior Appropriations Subcommittee last year where we provided \$20 million for the Department of Energy to proceed to build a commercial-sized oil shale plant and they refused to even proceed to get the contract ready. I think it is important that we change this bill. So that will say, Mr. President, instead of "you may" contract for purchase, "you may" encourage the development of synthetic fuel, that it will say "you shall" purchase, "you shall" proceed to develop and "you shall" contract for synthetic fuels.

That is all the amendment does.

The CHAIRMAN. Is there objection to the unanimous consent request of the gentleman from Utah?

Mr. BAUMAN. Mr. Chairman, I object.

The CHAIRMAN. Objection is heard.

The Clerk will read.

The Clerk concluded the reading of the amendment.

The CHAIRMAN. Was the gentleman's amendment printed in the Record?

Mr. McKAY. No, it was not, Mr. Chairman

The CHAIRMAN. The question is on the amendment offered by the gentleman from Utah (Mr. McKay).

The amendment was agreed to.

AMENDMENT OFFERED BY MR. DINGELL

Mr. DINGELL. Mr. Chairman, I offer an amendment.

The Clerk read as follows:

Amendment offered by Mr. Dingell: Page 5, line 2, strike out "The President" and all that follows down through line 7.

The CHAIRMAN. The Chair will inquire if the amendment was printed in the Record.

Mr. DINGELL. Mr. Chairman, the amendment was printed in the Record.

The CHAIRMAN. The gentleman from Michigan is recognized for 5 minutes in support of his amendment.

(Mr. Dingell asked and was given permission to revise and extend his remarks.)

Mr. DINGELL. Mr. Chairman, the language stricken is as follows, and I hope my colleagues will listen because it is most curious language:

The President is authorized and directed to require fuel and chemical feedstock suppliers to provide synthetic fuels and synthetic chemical feedstocks in any case in which the President deems it practicable and necessary to meet the national defense needs of the United States.

Supplier is a word of art. It can be a corner gasoline station, it can be a jobber or a wholesaler, it can be a refiner. It can be a producer at the wellhead. It can be any person who is engaged in the petroleum business. Indeed, it could be suppliers of coal and other similar energy sources.

The question is I am sure the committee has offered this amendment in good faith, but this bill would extend purchase authority and a requirement that the President could compel somebody to deliver that which he may very well not have, or which he would have to go onto the open market to procure to in turn deliver to the President. The supplier, remember, is a gasoline retailer, oil jobber, refiner, pipeliner, or producer. No one knows exactly what the sweep of the language of the committee bill is or whether these people would then have synfuels.

The other day I asked the Department of Energy, Department of Commerce, and Department of Defense and they were unable to explain what this authority was, how it would be used, why it was needed or how it would be carried out or, indeed, how the burdens of the section complained of would be applied to a supplier who might have no access to the commodity in question.

More importantly, this raises some liabilities for the United States under the Tucker Act. If the President were to go out to somebody and say, "Procure synfuels," the individual would then be responsible to go out, to procure synfuels. But under the Tucker Act the President would assume on behalf of the United States liability that would be enormous, that I cannot even tell the Members what it would be. The reason would be that first of all it would create not only a quasi-contractual authority on the part of the United States to pay the individual the costs of the synfuels, but to pay all of the costs that were associated with the procurement, including flying around the world to

hunt up sources of synfuels because the sources of synfuels under this language are not limited to the United States alone. In consequence, the Tucker Act liability of the United States under the language complained of could be enormous. I am sure almost any supplier would be quite delighted to assume this particular responsibility because with it could go the broadest assumption of responsibility to the United States to pay all costs associated therewith.

Perhaps the gentleman who is the chairman of the subcommittee can tell me whether he intended to absorb Tucker Act liability or whether, in fact, or who, in fact, he intended to be compelled to respond as a supplier to the President's order. Can the gentleman give me some response on that point?

Mr. MOORHEAD of Pennsylvania. Mr. Chairman, will the gentleman yield?

Mr. DINGELL. I yield to the gentleman.

Mr. MOORHEAD of Pennsylvania. Yes, the fuel suppliers contemplated in this language are those firms that actually sell fuels to the Government.

Mr. DINGELL. It does not say so here, though.

Mr. MOORHEAD of Pennsylvania. Allow me to make it clear in the colloquy that this is what is intended.

Mr. DINGELL. But the gentleman has conferred power in the President to go to any supplier, he can go to Jones' Gulf on South Capitol and tell them to deliver x amount of synfuel and assume a Tucker Act responsibility to Joe for delivery of massive amounts of money for whatever he does to get it. The word "supplier" is not defined, nor what synfuels are being delivered, the circumstances under which they are to be delivered, or, indeed, the liability of the United States.

I think the easiest way to handle this matter is simply to strike the language complained of and let the President function under the other sections of the Defense Procurement Act which afford the President the right to go out and to procure supplies and to make certain directions with regard to delivery of supply and to rely on the regular contract authority of the United States, which the President has in abundance, and for that reason I would think this inoffensive amendment striking very broad and dangerous language should be adopted by the Committee.

Mr. MOORHEAD of Pennsylvania. Mr. Chairman, I move to strike the last word and I rise in opposition to the amendment.

Mr. Chairman, there have been some criticisms of this legislation, that it was giving too much to the big corporations, oil companies, and others. I do not think it does.

But, to balance this, this section the gentleman seeks to strike is one of the sticks; you might call the other carrots, and what does it do? It just requires the suppliers under these conditions when the President determines it practicable, and second, when it is necessary to meet national defense needs.

Now, this is a way of pushing the oil companies, who maybe figure they can get a bigger profit from natural petroleum, into the synthetic business. We also then give them the reward of floor prices and things like that. So, deletion of this language would remove a stick which, granted, I do not think the President will use very much, but if he de-

cides it is practical and if he decides it is necessary to meet the national defense needs, he should be given that power.

Mr. Chairman, I urge defeat of the amendment.

Mr. McKINNEY. Mr. Chairman, will the gentleman yield?

Mr. MOORHEAD of Pennsylvania. I yield to the distinguished ranking minority member.

Mr. McKINNEY. Mr. Chairman, the chairman is absolutely right. This amendment, in all its seeming innocence, guts the bill. We have heard questions all afternoon of what we are giving to industry, underwriting this or doing that. This language of the bill gives the President some power.

I would remind my good friend from Michigan that this is the Defense Production Act. This talks about times of war, times of national emergency. The President should have power during the crises of that type. We are going to give the President the right to draft men and send them off to get killed. We certainly should give the President the right to get the gas to protect them there.

The CHAIRMAN. The question is on the amendment offered by the gentleman from Michigan (Mr. Dingell).

The question was taken, and the Chairman announced that the yeas appeared to have it.

Mr. DINGELL. Mr. Chairman, I demand a recorded vote, and pending that, I make the point of order that a quorum is not present.

The CHAIRMAN. Evidently a quorum is not present.

Pursuant to the provisions of clause 2, rule XXIII, the Chair announces that he will reduce to a minimum of 5 minutes the period of time within which a vote by electronic device, if ordered, will be taken on the pending question following the quorum call. Members will record their presence by electronic device.

The call was taken by electronic device.

The following Members responded to their names:

[Roll No. 281]

Abdnor	Beard, Tenn.	Burgener
Addabbo	Bedell	Burlison
Akaka	Benjamin	Burton, John
Albosta	Bennett	Burton, Phillip
Alexander	Bereuter	Butler
Ambro	Bethune	Byron
Anderson, Calif.	Bevill	Campbell
Andrews, N. Dak.	Biaggi	Carney
Annunzio	Blanchard	Carter
Anthony	Boggs	Cavanaugh
Applegate	Boland	Chappell
Archer	Boner	Cheney
Ashbrook	Bonior	Chisholm
Ashley	Bouquard	Clausen
Aspin	Bowen	Cleveland
Atkinson	Brademas	Clinger
AuCoin	Breaux	Coelho
Badham	Brinkley	Coleman
Bafalis	Brodhead	Collins, Ill.
Bailey	Brooks	Collins, Tex.
Baldus	Broomfield	Conte
Barnard	Brown, Calif.	Corcoran
Barnes	Brown, Ohio	Corman
Bauman	Broyhill	Cotter
Beard, R.I.	Buchanan	Coughlin

[Roll No. 281]—Continued

Courter	Glickman	Lehman
Crane, Daniel	Goldwater	Leland
Crane, Philip	Gonzalez	Lent
D'Amours	Goodling	Levitas
Daniel, Dan	Gore	Lewis
Daniel, R. W.	Gradison	Livingston
Danielson	Gramm	Lloyd
Dannemeyer	Grassley	Loeffler
Daschle	Gray	Long, Md.
Davis, Mich.	Green	Lott
de la Garza	Grisham	Lowry
Deckard	Guarini	Lujan
Dellums	Hagedorn	Luken
Derrick	Hall, Ohio	Lungren
Derwinski	Hall, Tex.	McCloskey
Devine	Hamilton	McCormack
Dickinson	Hammerschmidt	McDade
Dicks	Hance	McDonald
Dingell	Hanley	McEwen
Dixon	Hansen	McHugh
Dodd	Harkin	McKay
Donnelly	Harris	McKinney
Dornan	Harsha	Madigan
Dougherty	Hawkins	Maguire
Drinan	Hefner	Markey
Duncan, Oreg.	Heftel	Marks
Duncan, Tenn.	Hightower	Marlenee
Early	Hillis	Martin
Eckhardt	Hinson	Matsui
Edgar	Holland	Mattox
Edwards, Ala.	Hollenbeck	Mavroules
Edwards, Okla.	Holt	Mica
Emery	Horton	Michel
Erdahl	Howard	Mikva
Erlenborn	Hubbard	Miller, Calif.
Ertel	Huckaby	Miller, Ohio
Evans, Del.	Hughes	Mineta
Evans, Ga.	Hutto	Minish
Evans, Ind.	Hyde	Mitchell, Md.
Fary	Ichord	Mitchell, N.Y.
Fascell	Ireland	Moakley
Fazio	Jacobs	Moffett
Fenwick	Jeffords	Mollohan
Ferraro	Jenkins	Moore
Findley	Johnson, Calif.	Moorhead, Calif.
Fish	Johnson, Colo.	Moorhead, Pa.
Fisher	Jones, N.C.	Mottl
Fithian	Jones, Tenn.	Murphy, Ill.
Flippo	Kastenmeier	Murphy, Pa.
Florio	Kazen	Murtha
Foley	Kelly	Myers, Ind.
Ford, Mich.	Kemp	Myers, Pa.
Ford, Tenn.	Kildee	Natcher
Fountain	Kindness	Neal
Fowler	Kogovsek	Nedzi
Frenzel	Kostmayer	Nelson
Frost	Kramer	Nichols
Fuqua	LaFalce	Nolan
Garcia	Lagomarsino	Nowak
Gaydos	Latta	O'Brien
Gephardt	Leach, Iowa	Oakar
Gibbons	Leach, La.	Obey
Gilman	Leath, Tex.	Ottinger
Gingrich	Lederer	Panetta
Ginn	Lee	

[Roll No. 281]—Continued

Pashayan	Schroeder	Udall
Patten	Schulze	Van Deerlin
Paul	Sebelius	Vander Jagt
Pease	Seiberling	Vanik
Pepper	Sensenbrenner	Vento
Perkins	Shannon	Volkmer
Petri	Sharp	Walgren
Peyser	Shelby	Walker
Pickle	Shumway	Wampler
Preyer	Skelton	Watkins
Price	Slack	Waxman
Pritchard	Smith, Iowa	Weaver
Pursell	Smith, Nebr.	Weiss
Quayle	Snowe	White
Quillen	Snyder	Whitehurst
Rahall	Solarz	Whitley
Rallsback	Solomon	Whittaker
Ratchford	Spence	Whitten
Regula	St Germain	Williams, Mont.
Reuss	Stack	Williams, Ohio
Rhodes	Staggers	Wilson, Bob
Rinaldo	Stangeland	Wilson, C. H.
Ritter	Stanton	Wilson, Tex.
Robinson	Steed	Winn
Rodino	Stenholm	Wirth
Roe	Stewart	Wolff
Rose	Stokes	Wolpe
Rosenthal	Stratton	Wright
Rostenkowski	Studds	Wyatt
Roth	Stump	Wydler
Rousselot	Swift	Wylie
Roybal	Symms	Yates
Royer	Synar	Yatron
Rudd	Tauke	Young, Alaska
Runnels	Taylor	Young, Fla.
Russo	Thomas	Young, Mo.
Sabo	Traxler	Zablocki
Santini	Treen	Zeferetti
Sawyer	Trible	

The CHAIRMAN. Three hundred eighty-five Members have answered to their names, a quorum is present, and the Committee will resume its business.

RECORDED VOTE

The CHAIRMAN. The pending business is the demand of the gentleman from Michigan (Mr. Dingell) for a recorded vote.

A recorded vote was ordered.

The vote was taken by electronic device, and there were—ayes 94, noes 291, answered “present” 1, not voting 48, as follows:

[Roll No. 282]

AYES—94

Abdnor	Brown, Calif.	Crane, Daniel
Albosta	Brown, Ohio	Crane, Philip
Archer	Broyhill	Daniel, R. W.
Badham	Butler	Dannemeyer
Bauman	Carney	Deckard
Beard, Tenn.	Cheney	Dellums
Bonior	Cleveland	Derwinski
Brodhead	Collins, Tex.	Devine

[Roll No. 282]—Continued
 AYES—Continued

Dingell
 Eckhardt
 Edwards, Okla.
 Findley
 Ford, Mich.
 Goldwater
 Gonzalez
 Gradison
 Gramm
 Grassley
 Hammerschmidt
 Hansen
 Horton
 Jacobs
 Jeffords
 Johnson, Colo.
 Kelly
 Kemp
 Kindness
 Kramer
 Latta
 Livingston
 Lott
 Lowry

Lungren
 McDonald
 Maguire
 Markey
 Marlenee
 Martin
 Michel
 Mikva
 Moffett
 Moore
 Moorhead, Calif.
 Myera, Ind.
 Nedzi
 Nolan
 Ottinger
 Paul
 Petri
 Pritchard
 Quayle
 Regula
 Rose
 Roth
 Rousselot
 Rudd

Sabo
 Schener
 Schroeder
 Sebellius
 Seiberling
 Sensenbrenner
 Staggers
 Stangeland
 Swift
 Symms
 Taylor
 Thomas
 Traxler
 Treen
 Vento
 Weaver
 Weiss
 Whittaker
 Williams, Mont.
 Wolpe
 Wyatt
 Young, Alaska

NOES—291

Addabbo
 Alexander
 Ambro
 Anderson, Calif.
 Andrews, N.Dak.
 Annunzio
 Anthony
 Applegate
 Ashbrook
 Ashley
 Aspin
 Atkinson
 AuCoin
 Bailey
 Baldus
 Barnard
 Barnes
 Beard, R.I.
 Bedell
 Benjamin
 Bennett
 Bereuter
 Bethune
 Bevill
 Biaggi
 Bingham
 Blanchard
 Boggs
 Boland
 Boner
 Bouquard
 Bowen
 Brademas
 Breaux
 Brinkley
 Brooks

Broomfield
 Buchanan
 Burgener
 Burlison
 Burton, John
 Burton, Phillip
 Byron
 Campbell
 Carter
 Cavanaugh
 Chappell
 Chisholm
 Clausen
 Clinger
 Coelho
 Coleman
 Collins, Ill.
 Conte
 Corcoran
 Corman
 Cotter
 Coughlin
 Courter
 D'Amours
 Daniel, Dan
 Danieison
 Dasche
 Davis, Mich.
 de la Garza
 Derrick
 Dickinson
 Dicks
 Dixon
 Dodd
 Donnelly
 Dornan

Dougherty
 Drinan
 Duncan, Oreg.
 Duncan, Tenn.
 Early
 Edgar
 Edwards, Ala.
 Emery
 Erdahl
 Erlenborn
 Ertel
 Evans, Del.
 Evans, Ga.
 Evans, Ind.
 Fary
 Fascell
 Fazio
 Fenwick
 Ferraro
 Fish
 Fisher
 Fithian
 Flippo
 Florio
 Foley
 Ford, Tenn.
 Fountain
 Fowler
 Frenzel
 Frost
 Fuqua
 Garcia
 Gaydos
 Gephardt
 Gibbons
 Gilman

[Roll No. 232]—Continued
NOES—Continued

rich	Luken	Royer
man	McCloskey	Runnels
ling	McCormack	Russo
	McDade	Sawyer
	McEwen	Schulze
	McHugh	Shannon
	McKay	Sharp
	McKinney	Shelby
	Madigan	Shumway
	Marks	Skelton
	Matsui	Slack
	Mattox	Smith, Iowa
	Mavroules	Smith, Nebr.
	Mica	Snowe
	Miller, Calif.	Snyder
	Miller, Ohio	Solarz
	Mineta	Solomon
	Minish	Spence
	Mitchell, Md.	St Germain
	Mitchell, N.Y.	Stack
	Moakley	Stanton
	Mollohan	Steed
	Moorhead, Pa.	Stenholm
	Mottl	Stewart
	Murphy, Ill.	Stokes
	Murphy, Pa.	Stratton
	Murtha	Studds
	Myers, Pa.	Stump
	Natcher	Synar
	Neal	Tauke
	Nelson	Trible
	Nichols	Udall
	Nowak	Van Deerlin
	O'Brien	Vander Jagt
	Oakar	Vanik
	Obey	Volkmer
	Panetta	Walgren
	Pashayan	Walker
	Patten	Wampler
	Pease	Watkins
	Pepper	Waxman
	Perkins	White
	Peyser	Whitehurst
	Pickle	Whitley
	Preyer	Whitten
	Price	Williams, Ohio
	Pursell	Wilson, Bob
	Quillen	Wilson, C. H.
	Rahall	Wilson, Tex.
	Railsback	Winn
	Ratchford	Wirth
	Reuss	Wolff
	Rhodes	Wright
	Rinaldo	Wydler
	Ritter	Wylie
	Robinson	Yates
	Rodino	Yatron
	Roe	Young, Fla.
	Rosenthal	Young, Mo.
	Rostenkowski	Zablocki
	Roybal	Zeferetti

ANSWERED "PRESENT"—1

Bafalis

NOT VOTING—48

Akaka	Forsythe	Montgomery
Anderson, Ill.	Giaino	Murphy, N.Y.
Andrews, N.C.	Gudger	Oberstar
Bellenson	Guyer	Patterson
Bolling	Holtzman	Rangel
Bonker	Hopkins	Richmond
Carr	Jeffries	Roberts
Clay	Jenrette	Santini
Conable	Jones, Okla.	Satterfield
Conyers	Long, La.	Shuster
Davis, S.C.	Lundine	Simon
Diggs	McClory	Spellman
Downey	Marriott	Stark
Edwards, Calif.	Mathis	Stockman
English	Mazzoli	Thompson
Flood	Mikulski	Ullman

Mr. Wolpe changed his vote from "no" to "aye."

So the amendment was rejected.

The result of the vote was announced as above recorded.

The CHAIRMAN. Are there further amendments to section 3?

AMENDMENT OFFERED BY MR. WIRTH

Mr. WIRTH. Mr. Chairman, I offer an amendment.

The Clerk read as follows:

Amendment offered by Mr. Wirth: Page 8, after line 2, insert the following new paragraph:

"(6) In considering any proposed contract under this section, the President shall take into account the socioeconomic impacts on communities which would be affected by any new or expanded facilities required for the production of the fuel or feedstocks under that contract."

The CHAIRMAN. The Chair will inquire of the gentleman from Colorado as to whether the gentleman's amendment was printed in the Record?

Mr. WIRTH. Mr. Chairman, it was accepted by both sides, but not printed in the Record.

Mr. Chairman, the following statement, made by Gov. Richard D. Lamm of Colorado before the House Public Works Committee last March, clearly outlines the need for attention to the socioeconomic impacts of various energy programs made in H.R. 3930.

NATURE OF THE PROBLEM

While there are regional differences in the nature of the adverse impacts faced by communities undergoing rapid energy development, the basic patterns are the same. The speed of growth and the uncertainty accompanying that growth make it very difficult for communities to effectively anticipate the adverse impacts. As a result, public facilities and services fall far short of the need generated by the sud-

den influx of new residents. Where they exist, water and sewer systems are overtaxed; schools are overcrowded; health care facilities cannot meet the demand; and roads and transportation facilities are unable to handle the new levels of use.

In addition, commercial facilities and professional services are usually lacking—the uncertainty of energy development discourages economic diversification. Housing shortages frequently occur, driving the price of the existing housing stock to very high levels. Trailer camps spring up; available land is rapidly exhausted. Beyond these facility and service shortages, rapid energy development brings with it social disruption. Quiet rural communities are transformed into brawling boomtowns, complete with increases in child abuse, divorce, alcoholism, prostitution, and crime. In short, the social fabric of the community is severely torn.

Perhaps some case examples will bring this picture into clearer focus:

In Craig, Colo., population increased approximately 50 percent between the end of 1973 and the end of 1976, due to coal development and powerplant construction. In this period, crimes against persons increased by 900 percent, alcoholism cases increased by 623 percent, family disturbances by 352 percent, child abuse/neglect cases by 130 percent, and child behavior problems (excluding schools) by 1,000 percent.

In Mingo County, W. Va., it has been almost impossible to acquire land to accommodate coal mining families whose homes were ruined in floods 2 full years ago, much less those coming into the area for new coal mining employment. The land not on steep slopes or on flood plains is largely held by landowners unwilling to sell their land for housing, preferring to hold it for speculation or resource development.

Although the State has ample funds available to acquire land for new housing, it has only been able to buy a small part of the land it needs because private mining and land holding companies are unwilling to sell—the State has no power of eminent domain permitting land assembly for such purposes. In addition, most existing communities lack water and sewer facilities thereby raising the cost of housing site development.

In Rock Springs, Wyo., a very large coal-fired powerplant was put under construction in 1972, with 1 month's prior notice to local government. Simultaneously, the existing trona (natural soda ash) mining industry was expanding both its mining and processing operations. With population growth rates of over 15–20 percent per year, Rock Springs and nearby Green River faced inadequate law enforcement services, overcrowded schools, inability to go beyond constitutional bonding limits to build schools at a rate fast enough to accommodate enrollment increases, and hesitance on the part of the voters to bond themselves to accommodate a boom of uncertain duration. In addition, the doctor-patient ratio went from 1/1,100 to 1/3,700 within 2 years, because of the difficulty of attracting additional health services professionals to this boom community. At the height of Rock Springs' growth, 30 percent of the population indicated that they were obtaining health services from Salt Lake City, 200 miles away.

MAGNITUDE OF NEED

Estimates as to the magnitude of the financial need facing communities suffering from energy development's adverse impacts range from as high as \$80 billion, identified in a Department of Energy study, to the very conservative \$3.5 billion estimate of the Office of Management and Budget. OMB's estimate, by the way, did not include the costs of housing and transportation needs, two of the most expensive problems facing impacted communities. The Committee on Natural Resources and Environmental Management's Coal Subcommittee, under the leadership of Gov. Jay Rockefeller, is currently surveying a number of major coal and uranium producing States to ascertain their best estimates as to their financial need. In addition, we are examining other recent studies of impact needs. While the NGA survey is not yet complete, preliminary indications are that the Nation's impact needs are staggering. A case in point is provided in a recent study by the Old West Regional Commission of the fiscal impacts of energy development in nine Wyoming counties. The estimated capital cost facing these nine counties through 1985 amounts to a staggering \$337 million. This is more than three times the available borrowing capacity of these jurisdictions. And this figure is a very conservative estimate of the capital needs of this area. It assumes only the minimum acceptable level of public services, and does not include the cost of housing for incoming miners.

Nor does it include the needs of three additional counties not included in the study, preliminary estimated at well over \$100 million.

Over the same period, only about \$125 million is expected to be available through the State's coal impact tax and the return of Federal mineral leasing royalties. Though this money comes from production in the nine county area, it must also fund the needs felt in the three counties not included in the Wyoming study. These three additional counties produce virtually no coal, but are bedroom counties for the Decker Mine in Montana. They derive virtually no revenue from coal production, but are suffering severe impacts. On the balance, there is a net capital shortfall of well over \$300 million in the 12-county area.

Clearly, it is neither equitable nor feasible to expect impacted communities to bear the entire burden of response to America's call for increased energy production.

I hope my colleagues in the House will support this amendment to H.R. 3930. It will help us to focus on the community problems faced by many areas in Appalachia and the Rocky Mountains which will be adversely impacted by various energy programs.

The CHAIRMAN. The question is on the amendment offered by the gentleman from Colorado (Mr. Wirth).

The question was taken; and on a division (demanded by Mr. Rousselot) there were—ayes 92, nays 11.

So the amendment was agreed to.

The CHAIRMAN. Are there further amendments to section 3?

AMENDMENT OFFERED BY MR. VOLKMER

Mr. VOLKMER. Mr. Chairman, I offer an amendment.

The Clerk read as follows:

Amendment offered by Mr. Volkmer: Page 8, line 14 through page 9, line 15, strike all of said lines.

Mr. VOLKMER. Mr. Chairman, the amendment was not printed in the Record.

The CHAIRMAN. The question is on the amendment offered by the gentleman from Missouri (Mr. Volkmer).

The amendment was rejected.

The CHAIRMAN. Are there further amendments to section 3? If not, the Clerk will read.

The Clerk read as follows:

GENERAL PROVISIONS

Sec. 4. (a) Section 702(d) of the Defense Production Act of 1950 (50 U.S.C. App. 2152(d)) is amended by striking out "atomic".

(b) The first sentence of section 703(a) of the Defense Production Act of 1950 (50 U.S.C. App. 2152(a)) is amended by inserting "(except as provided in section 305)" after "other than corporate agencies".

(c) The first sentence of section 711(a) of the Defense Production Act of 1950 (50 U.S.C. App. 2161(a)) is amended—

(1) by striking out "There" and inserting in lieu thereof "Except as provided in the following sentence, there"; and

(2) by inserting after the first sentence the following new sentence: "There are hereby authorized to be appropriated \$2,000,000,000 to make payments in accordance with the contract provisions specified in section 305(d)(3) and with the provisions of section 305(d)(5)."

(d) The first sentence of section 717(a) of the Defense Production Act of 1950 (50 U.S.C. App. 2166(a)) is amended by striking out "September 30, 1979" and inserting in lieu thereof "September 30, 1980".

Mr. MOORHEAD of Pennsylvania (during the reading). Mr. Chairman, I ask unanimous consent that section 4 be considered as read, printed in the Record and open to amendment at any point.

The CHAIRMAN. Is there objection to the request of the gentleman from Pennsylvania?

Mr. BAUMAN. Mr. Chairman, I reserve the right to object.

The CHAIRMAN. The gentleman from Maryland reserves the right to object.

Mr. BAUMAN. Mr. Chairman, I reserve the right to object for the purpose of asking the gentleman from Pennsylvania what the gentleman's plans are for limiting time if this request is granted.

The last section was limited and that was 3 hours ago that the limit started and here we still are on that section.

Mr. MOORHEAD of Pennsylvania. Mr. Chairman, I have no present intention to limit time on this debate. I do not know of any imported amendments to the section; but if the gentleman objects, it can be read very shortly.

Mr. BAUMAN. No, no. I just wondered how many amendments were pending to the section.

Could the Chair tell us how many amendments are at the desk?

The CHAIRMAN. The Chair will advise the gentleman that at the moment there are approximately four amendments at the desk.

Mr. BAUMAN. Mr. Chairman, I withdraw my reservation of objection.

The CHAIRMAN. Is there objection to the request of the gentleman from Pennsylvania (Mr. Moorhead)?

There was no objection.

COMMITTEE AMENDMENTS

The CHAIRMAN. The Clerk will report the two technical committee amendments to section 4.

The Clerk read as follows:

Committee amendments: Page 10, line 12, strike "2152(a)" and insert "2153(a)".

On page 15, strike "The first sentence of section" and insert "Section."

The committee amendments were agreed to.

AMENDMENTS OFFERED BY MR. MOORHEAD OF PENNSYLVANIA

Mr. MOORHEAD of Pennsylvania. Mr. Chairman, I offer two technical amendments.

The Clerk read as follows:

Amendment offered by Mr. Moorhead of Pennsylvania: Page 10, line 23, insert "without fiscal year limitation" after "appropriated".

Page 10, line 23 insert ", which shall remain available until expended," after "\$2,000,000,000".

Mr. MOORHEAD of Pennsylvania. Mr. Chairman, first I would make a unanimous-consent request. This amendment was written before the Wright amendment was adopted, so the words should be, "after three billion dollars."

I ask unanimous consent that the amendment be changed accordingly.

The CHAIRMAN. Is there objection to the request of the gentleman from Pennsylvania?

There was no objection.

The CHAIRMAN. The Clerk will report the modification to the amendment.

The Clerk read as follows:

Page 10, line 23, insert ", which shall remain available until expended," after "\$3,000,000,000".

Mr. MOORHEAD of Pennsylvania. Mr. Chairman, this will be very quick. The purpose of the amendment is to make clear that even if the Defense Production Act were to be terminated, the funds would remain available to pay for contracts heretofore entered into.

I urge adoption of the amendment.

The CHAIRMAN. For what purpose does the gentleman from Michigan rise?

Mr. DINGELL. Mr. Chairman, have we dispensed with the reading of the amendment?

The CHAIRMAN. The amendment has been read, I would advise the gentleman.

The question is on the amendment, as modified, offered by the gentleman from Pennsylvania (Mr. Moorhead).

The amendment as modified, was agreed to.

AMENDMENT OFFERED BY MR. BEDELL

Mr. BEDELL. Mr. Chairman, I offer an amendment.
The Clerk read as follows:

Amendment offered by Mr. Bedell: Page 11, after 6, insert the following:
(e) Section 701(d) of the Defense Production Act of 1950 (50 U.S.C. App. 2151(d)) is amended by striking out "Defense Production Act Amendments of 1955" and inserting in lieu thereof "Defense Production Act Amendments of 1979".

Mr. BEDELL (during the reading). Mr. Chairman, I ask unanimous consent that the amendment be considered as read and printed in the Record.

The CHAIRMAN. Is there objection to the request of the gentleman from Iowa?

Mr. DINGELL. Mr. Chairman, I reserve the right to object, and also I reserve a point of order.

The CHAIRMAN. The gentleman from Michigan reserves the right to object.

Mr. DINGELL. And also I reserve a point of order, Mr. Chairman.

The CHAIRMAN. And the gentleman also reserves a point of order.

Mr. DINGELL. Mr. Chairman, can the gentleman tell us what the amendment does?

Mr. ROUSSELOT. Mr. Chairman, I object. Then we can hear it.

The CHAIRMAN. Objection is heard. The gentleman from Michigan reserves a point of order.

The Clerk will read.

The Clerk concluded the reading of the amendment.

Mr. BEDELL. Mr. Chairman, the amendment I am proposing to H.R. 3930, the Defense Production Act Amendments of 1979, would reinstate the requirement for a report that was first called for in the 1955 amendments to the Defense Production Act that would identify the amount of small business participation under the act. H.R. 3930 would extend the very broad authority granted to the President under this statute to energy production, providing for guaranteed purchase arrangements with producers sufficient to meet a 500,000 barrel per day crude oil equivalent for domestically produced synthetic fuels by 1985. My amendment is important because it would provide the Congress with a very valuable oversight tool to assure full participation by the small business sector in the development of a synfuels industry, thus achieving optimum implementation of the act.

Mr. Chairman, while I believe that the committee should be commended for its imaginative, farsighted approach to the most urgent challenge facing the Nation today—the development of noninterruptible sources of energy—I am concerned that there is alarming potential for H.R. 3930 to lock this country into further dependence on a concentrated energy production system. Clearly, the national interest would not be served if this act were to favor huge, capital intensive, geographically concentrated energy production facilities at the expense of decentralized, geographically dispersed facilities.

Without an institutionalized mechanism in the legislation to provide the Congress with a tangible "handle" for effective oversight, I fear that its enactment could ultimately prove counterproductive. My amendment would provide such a "handle".

The original Defense Production Act of 1950, in its declaration of policy section, stipulated that "it is the policy of Congress to encourage the geographical dispersal of the industrial facilities of the United States in the interest of the national defense, and to discourage the concentration of such productive facilities within limited geographical areas which are vulnerable to attack by an enemy of the United States." I, for one, believe that this admonition is even more relevant today than it was in 1950. I also believe that the development of certain types of synthetic fuels, most particularly alcohol fuel produced from renewable resources, offers us an excellent opportunity to moderate the emphasis—almost obsession—we have placed on centralized, capital intensive energy production facilities.

In a recent analysis entitled "The Effects of Nuclear War," the Congressional Office of Technology Assessment portrayed a scenario in which the Soviet Union launched a "limited" attack on economic targets in this country. Specifically, this "attack" by only 10 SS-18s—a large Soviet ICBM—was presumed to have been directed at the petroleum refining system in this country, which is, of course, a highly concentrated network. In the OTA's hypothetical analysis, the 10 ICBM's carried sufficient warheads to destroy the 77 largest refineries in the United States; OTA estimated that 64 percent of total U.S. petroleum refining capacity would be destroyed by such an attack. Obviously, the implications of such a loss for both our strategic and economic capacity would be enormous.

This hypothetical, admittedly "worst-case" scenario, underlines the fact that, to as great an extent as possible, energy production needs to be decentralized in this country. Optimum participation of small business in the development of a domestic synthetic fuels industry would help to achieve this necessary dispersal and decentralization.

Mr. Chairman, over the past several months, I have been involved with legislation of my own which would catalyze the formation of a viable domestic alcohol fuels industry. In my talks with farmers, academicians, and private industry experts, I have become convinced that the agricultural sector especially could stand to benefit from the implementation of a national program encouraging the development of an alternative fuels program. Even now, there are farmers who are producing their own fuel from excess crops and other organic materials and then using that fuel to run their own machinery and even heat their own homes. It does not take a great deal of imagination to see the importance of such a transition to greater energy independence in the agricultural sector, since the U.S. food production miracle is the foundation of its strength, both military and economic. An interruption of the fuel supply to our agricultural producers, as evidenced by the recent diesel shortages this spring, could be catastrophic. Emphasis on decentralized energy production could help to minimize this possibility.

In summary, then, Mr. Chairman, I believe that the amendment I am offering here today is needed if the Congress is to have the oversight tools to enable it to properly shape the implementation of the important legislation before us. Maximum participation of small business in the national synthetic fuels production effort will mean more

innovation, more productivity, as well as the needed decentralization of facility siting so critical to future generations of energy users in this country.

Mr. Chairman, I yield to the chairman of the committee.

Mr. MOORHEAD of Pennsylvania. Mr. Chairman, the intent of the committee is as much as possible to have small business and medium size business participate in the Defense Production Act.

The amendment is a good one and I urge its adoption.

The CHAIRMAN. Does the gentleman from Michigan insist on his point of order?

Mr. DINGELL. No, Mr. Chairman. I withdraw the point of order.

The CHAIRMAN. The question is on the amendment offered by the gentleman from Iowa (Mr. Bedell).

The amendment was agreed to.

AMENDMENT OFFERED BY MR. UDALL

Mr. UDALL. Mr. Chairman, I offer an amendment.

Mr. SYMMS. Mr. Chairman, I reserve a point of order against the amendment.

The Clerk read as follows:

Amendment offered by Mr. Udall: On page 11, after line 2, insert the following: (3) by inserting "(1)" before the first word of section (a) and by inserting the following after the last sentence:

"(2) No funds authorized in subparagraph (1) above to carry out the purposes of Sections 305(d)(3) and 305(d)(5) may be used to contract for the purchase of any amount of synthetic fuel or synthetic chemical feedstock with any major oil company. For the purposes of this section:

"(A) The term 'major oil company' means any person, association, or corporation which, together with its affiliates, either produces or refines a daily worldwide volume of 1,600,000 barrels of crude oil, natural gas liquids equivalents, and natural gas equivalents. Natural gas liquids equivalents and natural gas equivalents shall be determined as provided in section 105(b) of the Energy Policy and Conservation Act.

"(B) The term 'affiliate' means with respect to any person, association, or corporation, any other person, association, or corporation which controls, is controlled by, or is under common control with, such person, association, or corporation.

"(C) The term 'control' includes having or acquiring effective power or influence to determine the policies, business practices or decision-making processes of another person, whether such power or influence is actual or legal, and whether such power or influence may be exercised directly or indirectly, through ownership, or control of stock or other securities, through affiliates, through representation on a board of directors or similar body, through interlocking directorates, through election or one or more officers, or through any stockholder, agency, trust, joint venture, lease, or contractual agreement or arrangement, or otherwise. Control shall be presumed to exist whenever any person, association, or corporation owns 10 per centum or more of the outstanding voting securities of another corporation or association."

Mr. UDALL (during the reading). Mr. Chairman, I ask unanimous consent to dispense with the reading of the amendment, and that it be printed in the Record.

The CHAIRMAN. Is there objection to the request of the gentleman from Arizona?

Mr. SYMMS. Mr. Chairman, I object.

The CHAIRMAN. Objection is heard. The Clerk will read.

Mr. SYMMS. Mr. Chairman, I reserve a point of order against the amendment.

The **CHAIRMAN.** The Clerk will first report the amendment.

The Clerk concluded the reading of the amendment.

Mr. SYMMS. Mr. Chairman, I reserve a point of order.

The **CHAIRMAN.** Does the gentleman from Idaho reserve or make a point of order?

Mr. SYMMS. Mr. Chairman, I make a point of order.

The **CHAIRMAN.** The gentleman will state his point of order.

Mr. MOORHEAD of Pennsylvania. Mr. Chairman, I reserve a point of order.

The **CHAIRMAN.** The gentleman from Pennsylvania reserves a point of order.

Mr. SYMMS. Mr. Chairman, I make a point of order on the amendment.

The **CHAIRMAN.** The gentleman from Idaho will state the point of order.

Mr. SYMMS. Mr. Chairman, if the gentleman wants to go ahead I would be happy just to reserve a point of order.

I will reserve the point of order, Mr. Chairman.

The **CHAIRMAN.** The gentleman from Arizona (**Mr. Udall**) is recognized for 5 minutes in support of his amendment.

(**Mr. Udall** asked and was given permission to revise and extend his remarks.)

Mr. UDALL. Mr. Chairman, we have been hearing a lot about the oil companies. I suspect many in the Chamber have made some speeches about the oil companies and if you want to give them a good kick where it will do some good tonight, you can vote for this simple little amendment. It is not complicated.

It does one thing. It would prevent purchase contracts under this synthetic fuel bill from being available to the eight largest oil companies; no divestiture, none of the majors, the big eight, are required to do anything. It does not require divestiture.

I think this amendment is needed for three reasons.

First, these companies do not need Federal money to invest in synthetic fuel development.

Second, I believe we have an opportunity to develop a source of fuel separate from the resources of the oil industry. The major oil companies are now in coal. They have a big chunk of the Nation's coal tied up. They are in uranium in a big way, they are into geothermal, and they are into solar energy. What I would like to see is some competition for the fuel. This is a chance to promote some competition for the fuel, and I think it would be foolish to hand over all the incentives in this new technology to the giants of the oil industry.

Third, I believe that Americans sitting in their cars in gas lines tonight listening to news reports about oil tankers, about wells capped, and about oil being withheld, if they heard a news bulletin that the House passed a synthetic fuels bill that is going to provide more public money to these same giants, they are going to be very angry.

As the price of oil has been escalating, we have been told that the oil industry will take care of us if we will allow the price to go up a little more so the industry will have the necessary capital, and so on.

The cash flow of the eight largest oil companies before 1978, before decontrol, before the most recent jump in oil prices, was \$18 billion. That was their cash flow. It is hard for me to imagine that these companies need any financial incentive to do anything.

I know that some of my colleagues are worried that if we do not allow the top eight to participate in this program, no one else has the ability to do it.

Mr. PASHAYAN. Mr. Chairman, will the gentleman yield?

Mr. UDALL. I will yield in just a moment.

Mr. Chairman, that is not true. Of the top seven companies now receiving money from DOE to develop synthetic fuel, only two of them are in the top eight.

The next question is, if we do not permit these oil companies to participate, no one else will participate in it. Looking at the top oil companies, if we look at the top 15 oil producers in the United States, 9 of them are in the Fortune 500, ranking with the largest companies in the United States.

Looking at the companies receiving contracts from DOE, we find that only 2 of the majors are in the top 17 contractors.

So, Mr. Chairman, if my amendment passes, there certainly will be willing and eager contractors, companies willing to participate in this new and important program.

Mr. PASHAYAN. Mr. Chairman, will the gentleman yield?

Mr. UDALL. Yes, I yield to the gentleman from California.

Mr. PASHAYAN. Mr. Chairman, does the gentleman plan to vote in favor of a windfall profits tax?

Mr. UDALL. The gentleman certainly does, and the tougher the better.

Mr. PASHAYAN. All right. Then I take it that some of the money for these contracts would be used from the windfall profits tax?

Mr. UDALL. Yes, depending on what we do with other legislation. We can have this energy trust fund, and some of the money from that energy trust fund might go to pay for that.

Mr. PASHAYAN. So the gentleman says in effect he is trying to take money in from the windfall profits tax and transfer it to the other companies by these contracts?

Mr. UDALL. The windfall profits tax will apply to all companies, not just the big eight but all companies.

Mr. PASHAYAN. But there will be some transfer of funds through that mechanism?

Mr. UDALL. The gentleman can be opposed on that ground if he wishes.

Mr. MARKEY. Mr. Chairman, will the gentleman yield?

Mr. UDALL. I yield to the gentleman from Massachusetts.

Mr. MARKEY. Mr. Chairman, I support the amendment offered by the gentleman from Arizona (Mr. Udall).

I think equally important to the passage of the synthetic fuels bill which we are going to pass here this evening is the amendment offered by the gentleman from Arizona (Mr. Udall), which will also go forth as a message to those people who have control and have limited the production of synthetics for alternative fuel purposes in this country for the last decade or so.

As I see it, we are given the opportunity here of striking two blows, one of alternative fuels and one to prevent those who have stifled that alternative energy in the past decade. That is what we have here. We have the opportunity to see that Mobil, Exxon, Gulf, Socal, Indiana, and Sohio are kept out. We are not going to allow them to participate because they already have the capital available to make these investments. The competition will be present again within the oil industry, and it will not stifle competition.

Mr. Chairman, I think the amendment offered by the gentleman from Arizona (Mr. Udall) will further the cause of the synthetic fuels bill, and that is to provide competition for the oil-based economy.

Mr. VENTO. Mr. Chairman, will the gentleman yield?

Mr. UDALL. I yield to the gentleman from Minnesota.

The CHAIRMAN. The time of the gentleman from Arizona (Mr. Udall) has expired.

Mr. VENTO. Mr. Chairman, I ask unanimous consent that the gentleman from Arizona (Mr. Udall) be allowed to proceed for 2 additional minutes.

The CHAIRMAN. Is there objection to the request of the gentleman from Minnesota?

Mr. SYMMS. Mr. Chairman, I object.

The CHAIRMAN. Objection is heard.

POINT OF ORDER

Mr. SYMMS. Mr. Chairman, I insist on my point of order.

The CHAIRMAN. The gentleman from Idaho (Mr. Symms) will state his point of order.

Mr. SYMMS. Mr. Chairman, according to rule XVI, clause 7—that is the germaneness rule of the House—one of the tests is the jurisdiction of the committee of jurisdiction. Certainly a bill of this nature which we are talking about, when we have sort of a divestiture of certain oil companies, legislation of this sort should come from the Committee on the Judiciary.

Second, the title of the bill is another test of jurisdiction. According to the title, this is a bill “to amend the Defense Production Act of 1950 to extend the authority granted by such act and to provide for the purchase of synthetic fuels and synthetic chemical feedstocks, and for other purposes.”

Certainly that does not come under germaneness tests and the defense title of the bill. If there is any purpose to this bill, it is to provide for the production because of defense purposes, and this is an attempt to interfere and stop a substantial section of our country from participating in the program.

So, Mr. Chairman, I think certainly under rule XVI, clause 7, my argument stands up.

The CHAIRMAN. Does the gentleman from Arizona desire to be heard on the point of order?

Mr. UDALL. Just briefly, Mr. Chairman.

The amendment is carefully drafted as a limitation on authorization. It says, “No funds authorized * * * to carry out the purposes of section so-and-so “may be used to contract for the purchase or the com-

mitment to purchase any amount of synthetic fuel or synthetic chemical feedstock with any major oil company."

The amendment is clearly germane to the bill.

The CHAIRMAN. Does the gentleman from Minnesota (Mr. Vento) desire to be heard on the point of order?

Mr. VENTO. I do, Mr. Chairman.

Mr. Chairman, I rise to suggest that the point of order is not well taken. The provisions of this act that provide for an opportunity for Government-based cooperation provides for the limitation on the size of the contract in terms of 100-billion-a-day equivalent synthetic fuels. It has all sorts of parameters in the nature of purchases by contractors and the nature of the agreement. I think this is one further limitation that is in order in terms of this legislation.

The CHAIRMAN. Does the gentleman from Pennsylvania (Mr. Moorhead) desire to be heard on the point of order?

Mr. MOORHEAD of Pennsylvania. I do not, Mr. Chairman.

The CHAIRMAN (Mr. Studds). The Chair is prepared to rule.

The Chair cannot see any questions of germaneness raised by the amendment offered by the gentleman from Arizona (Mr. Udall). It appears to the Chair to be simply an additional restriction or condition on the contracting authority granted under this act and, therefore, to be germane.

The Chair overrules the point of order.

Mr. MOORHEAD of Pennsylvania. Mr. Chairman, I rise in opposition to the amendment.

Mr. Chairman, I rise in opposition to the amendment offered by my good friend, the gentleman from Arizona (Mr. Udall), even though I think that sometimes the oil companies should be given a kick, as the gentleman suggested. But the problem is that we are not really kicking the oil companies, what we are doing is kicking the United States of America because we may need one of those Big Eight oil companies to move this synthetic fuel production forward.

We should remember that in the contract, in the price support provisions of this bill, we provide specifically that no one company can contract for more than 100,000 barrels of oil. Therefore, even in the first 500,000-barrel goal there must be at least five participants, and that is the way to get competition.

We may have to have some of the big companies in those five. But we must remember what we are trying to do is to get synthetic fuel for this Nation. We are not trying to reward the oil companies; we are trying to protect the United States of America, the defense interests of the United States of America.

Mr. PERKINS. Mr. Chairman, will the gentleman yield?

Mr. MOORHEAD of Pennsylvania. I am delighted to yield to the gentleman from Kentucky.

Mr. PERKINS. Mr. Chairman, I want to thank the gentleman for yielding.

In my judgment, if the amendment offered by the gentleman from Arizona (Mr. Udall), is adopted, we would not have any bill here. The effect of it would be nil.

In 1953 the big oil companies were responsible for killing off the synthetic fuels program. But the options here and the incentives are so

limited in my judgment that the big oil companies will be the ones that will get the contracts. That is my judgment about this bill, and if we want the bill at all, we had better vote against this amendment.

Mr. MOORHEAD of Pennsylvania. Mr. Chairman, I yield back the balance of my time.

Mr. MCKINNEY. Mr. Chairman, I move to strike the last word, and I rise in opposition to the amendment.

Mr. Chairman, there are so many protections in this bill that to bring up this issue of divestiture is unnecessary. I think my good friend, the gentleman from Arizona (Mr. Udall) knows that I have two bills in that affect retail divestiture and also alternative resources divestiture.

I think the chairman of the subcommittee is absolutely right when he says the only thing we are going to affect with this amendment is perhaps the ability of this country to get energy. The public and the taxpayer are protected by a sealed bid process. They are protected by a limitation on the size of the contracts.

In many cases, particularly in coal gasification, we are talking about plant installations that will range anywhere in cost, according to estimates from the Department of Defense and the Department of Energy, from \$1.5 to \$2.1 billion.

It is obvious that we may, by passing this type of amendment, be bringing about a total halt to the purpose of this bill.

Mr. Chairman, I would suggest to my colleagues that if we want to talk about the oil companies, if we want to go home and talk about the oil companies, all right, but I suggest we all keep quiet, because pretty soon people will be asking, "Where is the gas?" We had better go home and talk about getting more energy and not just talk about the oil companies.

Mr. SYMMS. Mr. Chairman, will the gentleman yield?

Mr. MCKINNEY. I yield to the gentleman from Idaho.

Mr. SYMMS. I thank the gentleman for yielding.

Mr. Chairman, I would like to add to that. I have some figures here that were worked out by some of the staff last night of the potential number of oil companies affected by this amendment. The Members might be interested in this.

Sun Oil Co., Marathon, Phillips, Getty, Continental, Shell, Atlantic Richfield, Standard Oil of Indiana, Gulf, Mobil, Standard of California, Texaco, and Exxon. So you are removing those potentially from participating in this program.

I do not happen to think this is the right way to solve the problem to have the bill, in the first place, but if we are going to have the bill, what you are doing is removing those people who have the geology technology, and so forth.

Mr. MCKINNEY. This argument does not belong in this bill, I think the gentleman is saying, and he is right.

Mr. SYMMS. If the merits of this bill are good, then this amendment is lousy.

Mr. JOHNSON of Colorado. Mr. Chairman, will the gentleman yield?

Mr. MCKINNEY. I yield to the gentleman from Colorado.

Mr. JOHNSON of Colorado. I thank the gentleman for yielding.

Mr. Chairman, I will say to my colleague that if this amendment : you have effectively stopped any development of oil shale under

this bill. Of the companies involved in oil shale, all of them are located in my district. The companies that are involved in it right now are Standard of Indiana, Gulf, Exxon, Union, Shell, Superior, and Atlantic Richfield.

All of the companies which have contemplated developing oil shale have said they have not wanted loan guarantee programs, they did not want purchase guarantee programs or tax credits or rapid write-offs or something that would try to help them justify making a billion-dollar expenditure to develop a 60,000-barrel-a-day plant.

If the Udall amendment passes, I do not know how it would affect coal, but it will very effectively affect development of oil shale. And if you think oil shale should be developed in this bill, then you would have to vote against the Udall amendment.

Mr. EMERY. Mr. Chairman, will the gentleman yield?

Mr. MCKINNEY. I yield to the gentleman from Maine.

Mr. EMERY. I thank the gentleman for yielding.

Mr. Chairman, I rise in opposition to the Udall amendment. I think the gentleman from Colorado has made an important point. That is, rather than penalizing the old companies, which some Members in this Chamber and some people around the country see as villains in this play, what we really will be effectively doing is eliminating a vast amount of technology, such as coal gasification, oil shale, and some of these technologies which will be expensive. We may be eliminating the very people who have the knowledge and the equipment necessary to bring those resources into production at a reasonably low price.

I do not think we ought to be limiting any alternative that we might possibly develop into an energy resource. If we start ruling out people with technology, we may in fact be cutting our own throats.

Mr. JOHN L. BURTON. Mr. Chairman, will the gentleman yield?

Mr. MCKINNEY. I yield to the gentleman from California.

Mr. JOHN L. BURTON. I thank the gentleman for yielding.

Mr. Chairman, I think the only thing we are limiting them from is getting money from our taxpayers to subsidize what they can do with their own money. We are not saying they cannot engage in synthetic fuel. What we are saying is that we are not going to let them have our taxpayers' dollars and subsidize the wealthiest corporations in the Nation to do what they can do on their own. That is all we are saying. We are not saying they cannot get in the synthetic fuel business.

Mr. MOORHEAD of Pennsylvania. Mr. Chairman, I ask unanimous consent that all debate on this amendment and all amendments thereto close in 5 minutes.

The CHAIRMAN. Is there objection to the request of the gentleman from Pennsylvania?

There was no objection.

The CHAIRMAN. Members standing at the time the unanimous-consent request was agreed to will be recognized for approximately 20 seconds each.

The Chair recognizes the gentleman from California (Mr. Lagomarsino).

Mr. LAGOMARSINO. Mr. Chairman, I rise in opposition to this amendment.

The whole purpose of the bill is to provide energy for the American people. This would prevent this from happening or at least greatly curtail it.

The CHAIRMAN. The Chair recognizes the gentleman from Indiana (Mr. Fithian).

Mr. FITHIAN. Mr. Chairman, I rise in support of the amendment.

Mr. Chairman, I would just point out to the member of the committee that, in checking DOE and USDE proposals for energy projects for synthetic fuels, there were enough proposals there to make 10 times the amount of fuel that we are talking about in this bill and do it for less than \$100 million.

Mr. Chairman, I will be offering an amendment to the Department of Energy authorization bill. It is not appropriate here.

The CHAIRMAN. The Chair recognizes the gentlewoman from New Jersey (Mrs. Fenwick).

Mrs. FENWICK. Mr. Chairman, I rise in opposition to the amendment.

I hope the proponents will forgive me if I say it is absurd. This country is strangling for oil, and the proponents of the amendment are suggesting that perhaps those most able to provide synthetic fuel will not be able to do so under this amendment.

The CHAIRMAN. The Chair recognizes the gentleman from California (Mr. John L. Burton).

Mr. JOHN L. BURTON. Mr. Chairman, the most absurd thing in the world I have heard is to take our taxpayers' dollars, the working men and women of this country, and give it to the big oil companies to do something they can do now. That is absurd. It is communism and socialism for the rich.

The CHAIRMAN. The Chair recognizes the gentleman from Maine (Mr. Emery).

Mr. EMERY. Mr. Chairman, the other absurdity is to continue to pay the high OPEC prices for oil when we have the capability of producing synthetic fuels in this country and relieving ourselves of foreign dependence.

Mr. Chairman, I urge the defeat of this amendment and support of the legislation.

The CHAIRMAN. The Chair recognizes the gentleman from Massachusetts (Mr. Markey).

Mr. MARKEY. Mr. Chairman, in the 1979 fiscal year the DOE granted \$429 million for the development of synthetic fuels to a number of companies in this country. Of the 17 companies, only 3 are among the 8 companies.

The CHAIRMAN. The Chair recognizes the gentleman from California (Mr. Pashayan).

Mr. PASHAYAN. Mr. Chairman, I have a question for my colleague, the gentleman from California (Mr. John L. Burton). Since the gentleman is opposed to the taxpayers' money going to corporations to contract, then is he going to vote against the windfall profits tax in order to have the companies keep the money to invest?

Mr. JOHN L. BURTON. If you want to nationalize your own companies, I will second your motion.

The CHAIRMAN. The Chair recognizes the gentleman from Illinois (Mr. Russo).

Mr. RUSSO. Mr. Chairman, I yield to the gentleman from California (Mr. John L. Burton) for some more words of wisdom.

Mr. JOHN L. BURTON. My distinguished friend, the gentleman from Texas, whose name I will not mention, has called this bill corporate socialism, and that is what it is. All we are trying to do is to say: Do not let the richest get tax subsidies for doing what they can do now. They are the ones who are responsible for the gas shortage.

The CHAIRMAN. The Chair recognizes the gentleman from New York (Mr. Horton).

(Mr. Horton asked and was given permission to revise and extend his remarks.)

Mr. HORTON. Mr. Chairman, I rise in opposition to the amendment and in favor of the bill.

Mr. Chairman, with the Arab oil embargo of 1973, Americans first realized the serious national consequences of our dependence on foreign energy. However, little progress has been made during the past 6 years to reduce this dependence. The long gas lines and shortages of both gasoline and heating oil are now anticipated for the coming winter months.

The Arab embargo aside, more than 2 years have passed since President Carter first announced his national energy plan and summoned the Nation to do battle in the "moral equivalent of war." The passage of the President's plan by the Congress and its acceptance by the American people, however, did not materialize as he had expected. I was opposed to the administration's plan, then, and I remain opposed to the reliance it placed on taxation, regulation and excessive Federal involvement in meeting the energy challenge. In my opinion, proposals developed by the administration have failed to tap the abilities of American citizens and industry to vigorously develop an energy policy which frees us from the hold of OPEC.

Reasonable conservation is a necessary ingredient in any energy policy. However, restricting justifiable energy consumption through the creation of a complex regulatory network serves no purpose except to restrict economic growth and lower the quality of life for Americans. This Nation possesses the ability to harness the energy of the sun, gasify coal, recover oil from shale, and develop a peaceful use for the awesome energy of the atom. For more than 7 years, I have attempted to win support for an energy policy which emphasizes the development of these and other alternatives to oil.

I am pleased that consensus is finally developing within the Congress over the importance of alternative energy sources to satisfying our short and long term.

By its adoption of H.R. 3930, as amended, the House has finally moved the Nation toward energy independence. Synthetic fuels, derived from such abundant domestic resources as coal, grain, and oil shale, offer the United States the means of breaking the grip of the OPEC cartel.

As amended on the floor, H.R. 3930 directs the President to attempt to achieve a national production goal of at least 2,000,000 barrels per day crude oil equivalent of synthetic fuels and synthetic chemical feedstocks within 5 years of the effective date of the bill. The effective date of the bill is October 1.

The synfuels bill will not by itself eliminate our dependence on foreign energy. However, I am confident that if this legislation is fol-

lowed by similar proposals which create positive incentives for the development of alternatives to oil, such as solar, geothermal and coal, we will be well on our way to establishing a diverse and coordinated energy policy, one which meets the energy needs of our Nation for now and the future, and which frees us from the stranglehold of the OPEC nations.

Thus, Congress is on the verge of implementing an initiative which may help solve our most pressing problem—energy.

The CHAIRMAN. The Chair recognizes the gentleman from Kentucky (Mr. Hubbard).

(Mr. Hubbard asked and was given permission to revise and extend his remarks.)

Mr. HUBBARD. Mr. Chairman, I rise in opposition to the amendment.

Mr. Chairman, I would add that this particular amendment would be harmful to the coal industry. As a cosponsor of the bill, I strongly oppose the amendment and I urge my colleagues to do likewise.

Mr. Chairman, this is one Congressman who is absolutely convinced that this Nation must move forward with a broad program to develop synthetic fuels. I believe the Defense Production Act amendments of 1979 is timely legislation that will insure that the energy requirements of our military can be met solely with the use of domestic resources, without reliance on unstable sources of foreign oil. This bill is necessary if the United States is to be in a position to resist potential energy blackmail by petroleum exporting nations. And this bill is essential if we are to expand energy production in the United States by developing our own resources, such as coal and alcohol fuels, and insure that never again will we have to wait in mile-long lines to get gasoline for our cars.

I am privileged to serve on Chairman William Moorhead's Subcommittee on Economic Stabilization, which developed this legislation, and to be one of the bill's cosponsors. When I have constituents call and write my office, demanding to know what Congress is doing about our current energy shortage, I have something positive to point to. And I have something to tell the more than 1,200 unemployed coal miners in western Kentucky who have been indefinitely laid off because of the soft market for high sulfur coal—coal which one day can be used to power our automobiles and factories.

Coal conversion is not a technology that will reduce gas station lines tomorrow or reduce our staggering oil imports in the immediate years ahead, but it is a long-range program designed to meet our long-range energy needs with domestic resources. Meeting these needs demands the type of national commitment that is embodied in the Defense Production Act amendments of 1979, and the time for Congress to act is now.

Creating a synthetic fuels industry will be costly, and a commitment by the Federal Government to provide financial incentives to develop this industry must be forthcoming from Congress. The OPEC nations are meeting this very day to plan their latest price hike, and we can be assured that there will be continued OPEC price hikes as long as we continue to import half of our petroleum needs.

Again, I would like to commend Chairman Moorhead and the members and staff of the Economic Stabilization Subcommittee of the Committee on Banking, Finance and Urban Affairs for their work in pro-

ducing this bold and innovative approach to meeting this Nation's long-range energy needs.

I urge my colleagues to give their overwhelming support to this landmark legislation.

The CHAIRMAN. The Chair recognizes the gentleman from Pennsylvania (Mr. Ritter).

Mr. RITTER. Mr. Chairman, I rise in opposition to this amendment.

I would like to ask my colleagues where they think the capital for building these plants comes from?

The Moorhead-Ritter, et al., bill does not supply the capital for constructing the plants. It only supplies the purchase guarantee.

Mr. VENTO. Mr. Chairman, I rise in support of the amendment.

They control a substantial amount of the uranium. They control the coal. They chose to invest money in the Middle East. They have chosen to invest in services and a whole host of other things nonenergy related. I think it is time we take the leverage of this bill and give it to those who will do the job, the small oil companies.

Mr. EDWARDS of Oklahoma. Mr. Chairman, this puts some Members antibusiness ideology ahead of the very real need to produce more energy in this country. I oppose the amendment.

(By unanimous consent, Mr. Kostmayer yielded his time to Mr. Udall.)

Mr. UDALL. Mr. Chairman, if there is one thing the American people agreed upon, it is that we are in trouble and we are in trouble because of the oil companies. Our whole energy future is in the hands of affluent oil companies who own the refineries, own the well, own the tankers, have little sweetheart arrangements between them, and all we are saying is we are going to develop a new competitive section of the energy business. We are going to develop medium-sized companies. Only the Fortune 500 will be eligible. We will have these companies competing in energy and taking over the synthetic fuels area. I think we are making a serious mistake if they do not say here tonight of this great new program that it is not going to be taxpayers' money going down the hole. They had \$18 million of retained earnings from last year.

Mr. MOORHEAD of Pennsylvania. Mr. Chairman, the author of the amendment, I think, picked the wrong enemy. The enemy is clearly the OPEC countries which have declared economic war on us. We should not go into this with one arm tied behind our back. Let us let everybody compete and compete fairly and keep our eye on the main goal, which is the production of synthetic fuel for national defense purposes.

The CHAIRMAN. All time has expired.

The question is on the amendment offered by the gentleman from Arizona (Mr. Udall).

The question was taken, and on a division (demanded by Mr. Udall) there were—ayes 34, noes 112.

RECORDED VOTE

Mr. UDALL. Mr. Chairman, I demand a recorded vote
A recorded vote was ordered.

The vote was taken by electronic device, and there were—ayes 127, noes 263, answered “present” 1, not voting 43, as follows:

[Roll No. 233]

AYES—127

Albosta	Ferraro	Moakley
Ambro	Findley	Mottl
Aspin	Fithian	Nolan
Atkinson	Florio	Oakar
AuCoin	Ford, Mich.	Obey
Bailey	Ford, Tenn.	Ottinger
Baldus	Frost	Panetta
Barnes	Garcia	Paul
Beard, R.I.	Gephardt	Pease
Bedell	Gilman	Petri
Benjamin	Glickman	Pursell
Bingham	Gonzales	Rodino
Blanchard	Gore	Roe
Boland	Gray	Rosenthal
Boner	Guarini	Roybal
Bonior	Hanley	Sabo
Bonker	Harkin	Scheuer
Brademas	Harris	Seiberling
Brodhead	Heckler	Shannon
Broomfield	Heftel	Sharp
Brown, Calif.	Hollenbeck	Snowe
Burton, John	Howard	Stack
Burton, Phillip	Jacobs	Staggers
Chisholm	Kastenmeier	Stangeland
Clay	Kildee	Stokes
Collins, Ill.	Kostmayer	Studds
Conte	Leach, Iowa	Swift
Corman	Leland	Traxler
D'Amours	Lloyd	Udall
Danielson	Long, Md.	Van Deerlin
Daschle	Lowry	Vanik
Davis, Mich.	Luken	Vento
Dellums	Maguire	Volkmer
Dixon	Markey	Walgren
Dodd	Marks	Weaver
Donnelly	Marlenee	Weiss
Drinan	Matsui	Williams, Mont.
Early	Mavroules	Wolff
Eckhardt	Mikva	Wolpe
Edgar	Miller, Calif.	Yates
Edwards, Calif.	Mineta	Young, Mo.
Evans, Ind.	Minish	
Fazio	Mitchell, Md.	

NOES—263

Abdnor	Badham	Brinkley
Addabbo	Barnard	Brooks
Akaka	Bauman	Brown, Ohio
Alexander	Beard, Tenn.	Broyhill
Anderson, Calif.	Bennett	Buchanan
Andrews, N.C.	Bereuter	Burgener
Andrews, N. Dak.	Bethune	Burlison
Annunzio	Bevill	Butler
Anthony	Biaggi	Byron
Applegate	Boggs	Campbell
Archer	Bouquard	Carney
Ashbrook	Bowen	Carter
Ashley	Breaux	Cavanaugh

NOES—Continued

Chappell	Hammerschmidt	Montgomery
Cheney	Hance	Moore
Clausen	Hansen	Moorhead,
Cleveland	Harsha	Calif.
Clinger	Hefner	Moorhead, Pa.
Coelho	Hightower	Murphy, Ill.
Coleman	Hillis	Murphy, Pa.
Collins, Tex.	Hinson	Murtha
Corcoran	Holland	Myers, Ind.
Cotter	Holt	Myers, Pa.
Coughlin	Horton	Natcher
Courter	Hubbard	Neal
Crane, Daniel	Huckaby	Nedzi
Crane, Philip	Hughes	Nelson
Daniel, Dan	Hutto	Nichols
Daniel, R. W.	Hyde	Nowak
Dannemeyer	Ichord	O'Brien
de la Garza	Ireland	Pashayan
Deckard	Jeffords	Patten
Derrick	Jenkins	Pepper
Derwinski	Johnson, Calif.	Perkins
Devine	Johnson, Colo.	Pickle
Dickinson	Jones, N.C.	Preyer
Dicks	Jones, Tenn.	Price
Dingell	Kazen	Pritchard
Dornan	Kelly	Quayle
Dougherty	Kemp	Quillen
Duncan, Oreg.	Kindness	Rahall
Duncan, Tenn.	Kogovsek	Rallsback
Edwards, Ala.	Kramer	Ratchford
Edwards, Okla.	LaFalce	Regula
Emery	Lagomarsino	Reuss
Erdahl	Latta	Rhodes
Erlenborn	Leach, La.	Rinaldo
Ertel	Leath, Tex.	Ritter
Evans, Del.	Lederer	Robinson
Evans, Ga.	Lee	Rose
Fary	Lehman	Rostenkowski
Fascell	Lent	Roth
Fenwick	Levitas	Rousselot
Fish	Lewis	Royer
Fisher	Livingston	Rudd
Flippo	Loeffler	Runnels
Foley	Lott	Russo
Fountain	Lujan	Santini
Fowler	Lundine	Sawyer
Frenzel	Lungren	Schroeder
Fuqua	McCloskey	Schulze
Gaydos	McCormack	Sebelius
Gibbons	McDade	Sensenbrenner
Gingrich	McDonald	Shelby
Ginn	McEwen	Shumway
Goldwater	McHugh	Skelton
Goodling	McKay	Slack
Gradison	McKinney	Smith, Iowa
Gramm	Madigan	Smith, Nebr.
Grassley	Martin	Snyder
Green	Mattox	Solarz
Grisham	Mica	Solomon
Hagedorn	Michel	Spence
Hall, Ohio	Miller, Ohio	St Germain
Hall, Tex.	Mitchell, N.Y.	Stanton
Hamilton	Mollohan	Steed

NOES—Continued

Stenholm	Walker	Wilson, Tex.
Stewart	Wampler	Winn
Stratton	Watkins	Wirth
Stump	Waxman	Wright
Symms	White	Wyatt
Synar	Whitehurst	Wydler
Tauke	Whitley	Wylie
Taylor	Whittaker	Yatron
Thomas	Whitten	Young, Alaska
Treen	Williams, Ohio	Young, Fla.
Trible	Wilson, Bob	Zablocki
Vander Jagt	Wilson, C. H.	Zeferetti

ANSWERED "PRESENT"—1

Bafalis

NOT VOTING—48

Anderson, Ill.	Hawkins	Patterson
Beilenson	Holtzman	Peyser
Bolling	Hopkins	Rangel
Carr	Jeffries	Richmond
Conable	Jenrette	Roberts
Conyers	Jones, Okla.	Satterfield
Davis, S.C.	Long, La.	Shuster
Diggs	McClory	Simon
Downey	Marriott	Spellman
English	Mathis	Stark
Flood	Mazzoli	Stockman
Forsythe	Mikulski	Thompson
Glaimo	Moffett	Ullman
Gudger	Murphy, N.Y.	
Guyer	Oberstar	

The Clerk announced the following pairs:

On this vote:

Mr. Moffett for, with Mr. Flood against.

Mr. Conyers for, with Mr. Long of Louisiana against.

Mr. Thompson for, with Mr. Conable against.

Mr. Rangel for, with Mr. Guyer against.

Mr. Richmond for, with Mr. McClory against.

Mr. Ford of Michigan changed his vote from "no" to "aye."

So the amendment was rejected.

The result of the vote was announced as above recorded.

Mr. McKINNEY. Mr. Chairman, I ask unanimous consent that all debate on this bill and any amendments thereto end at 9:25 p.m.

The CHAIRMAN. Does the gentleman ask unanimous consent to consider the remainder of the bill read?

Mr. McKINNEY. Mr. Chairman, I also ask unanimous consent to dispense with the reading of section 5, and that all debate on this bill and any amendments thereto end at 9:30 p.m.

The CHAIRMAN. Is there objection to the request of the gentleman from Connecticut?

Mr. GORE. Mr. Chairman, reserving the right to object, could the Chairman or the clerk advise us as to how many amendments are at the desk?

The CHAIRMAN. At the moment there are four amendments at the desk.

Mr. McKINNEY. Mr. Chairman, will the gentleman yield?

Mr. GORE. I yield to the gentleman from Connecticut.

Mr. McKINNEY. At the present moment, as I understand it, there are four amendments at the desk. It is my opinion, although the Chair has not ruled, that one is not germane. It is my opinion that we are going to accept at least one, and I think we can dispense with those.

It seems to me that the mood of the House is rather clear. I suggest that lengthening this process is only going to bring more trouble.

Mr. GORE. Mr. Chairman, I withdraw my reservation of objection.

The CHAIRMAN. Is there objection to the request of the gentleman from Connecticut?

There was no objection.

Section 5 reads as follows:

EFFECTIVE DATE

SEC. 5. The amendments made by this Act shall take effect on October 1, 1979.

The CHAIRMAN. The Chair would like to recognize those Members having amendments to offer.

AMENDMENT OFFERED BY MR. GORE

Mr. GORE. Mr. Chairman, I offer an amendment.

The Clerk read as follows:

Amendment offered by Mr. Gore: Page 11, after line 6, insert the following: (e) Title VII of the Defense Production Act of 1950 (50 U.S.C. App. 2151 et seq.) is amended by adding at the end thereof the following:

"Sec. 721 (a) Whenever the President determines (1) that the use of any equipment, supplies, or component parts thereof, or materials or facilities necessary for the manufacture, servicing, or operation of such equipment, supplies, or component parts, is needed for the national defense, (2) that such need is immediate and impending and such as will not admit or delay or resort to any other source of supply, and (3) that all other means of obtaining the use of such property for the defense of the United States upon fair and reasonable terms have been exhausted, he is authorized to requisition such property or the use thereof for the defense of the United States upon the payment of just compensation for such property or the use thereof to be determined as hereinafter provided. The President shall promptly determine the amount of the compensation to be paid for any property or the use thereof requisitioned pursuant to this section but each such determination shall be made as of the time it is requisitioned in accordance with the provision for just compensation in the fifth amendment to the Constitution of the United States. If the person entitled to receive the amount so determined by the President as just compensation is unwilling to accept the same as full and complete compensation for such property or the use thereof, he shall be paid promptly 75 per centum of such amount and shall be entitled to recover from the United States, in an action brought in the Court of Claims or, without regard to whether the amount involved exceeds \$10,000, in any district court of the United States, within three years after the date of the President's award, an additional amount which, when added to the amount so paid to him, shall be just compensation.

(b) Whenever the President determines that any real property acquired under this section and retained is no longer needed for the defense of the United States, he shall, if the original owner desires the property and pays the fair value thereof, return such property to the owner. In the event the President and the original owner do not agree as to the fair market value of the property, the fair value shall be determined by three appraisers one of whom shall be chosen by the President, one by the original owner, and the third by the first two appraisers; the expenses of such determination shall be paid in equal shares by the Government and the original owner.

(c) Whenever the need for the national defense of any personal property requisitioned under this section shall terminate, the President may dispose of such property on such terms and conditions as he shall deem appropriate, but to the extent feasible and practicable he shall give the former owner of any property so disposed of an opportunity to reacquire it (1) at its then fair value as determined by the President, or (2) if it is to be disposed of (otherwise than at a public sale of which he is given reasonable notice) at less than such value, at the highest price any other person is willing to pay therefor: *Provided*, That this opportunity to reacquire need not be given in the case of fungibles or items having a fair value of less than \$1,000."

Mr. GORE (during the reading). Mr. Chairman, I ask unanimous consent that the amendment be considered as read and printed in the Record.

The CHAIRMAN. Is there objection to the request of the gentleman from Tennessee?

There was no objection.

The CHAIRMAN. The Chair recognizes the gentleman from Tennessee (Mr. Gore).

Mr. YATES. Mr. Chairman, I ask unanimous consent to yield my time to the gentleman from Tennessee (Mr. Gore).

The CHAIRMAN. Is there objection to the request of the gentleman from Illinois?

Mr. BAUMAN. Mr. Chairman, I object.

The CHAIRMAN. Objection is heard.

The Chair recognizes the gentleman from Tennessee (Mr. Gore).

Mr. GORE. Mr. Chairman, this amendment restores authority that was previously in this act to give the President the right to declare eminent domain. It is aimed at the Sohio pipeline, to let him enforce the need of the country to get oil moving from west to east. If the companies will not do it, let us take it over and put up for bids the right to run that pipeline.

Mr. Chairman, I ask my colleagues to support this amendment.

PREFERENTIAL MOTION OFFERED BY MR. DINGELL

Mr. DINGELL. Mr. Chairman, I offer a preferential motion.

The Clerk read as follows:

Mr. Dingell moves that the Committee do now rise and report the bill back to the House with the recommendation that the enacting clause be stricken.

The CHAIRMAN. The gentleman from Michigan (Mr. Dingell) is recognized for 5 minutes in support of his preferential motion.

Mr. DINGELL. Mr. Chairman, my colleagues should know what is involved in the amendment offered by my distinguished friend from Tennessee (Mr. Gore). Under the amendment that he offers, the language is as follows:

Whenever the President determines (1) that the use of any equipment, supplies, or component parts thereof, or materials or facilities necessary for the manufacture, servicing, or operation of such equipment, supplies, or component parts, is needed for the national defense, (2) that such need is immediate and impending and such as will not admit of delay or resort to any other source of supply.

What this authorizes is literally the condemnation of anything in the country in the name of national defense. I am not sure that this would extend to the pipeline because it relates only to the national

defense, and I am not sure the President could make the finding. The hard fact of the matter is, though, that under this law anything could be taken.

It should be known where this came from. This is a section out of the old Defense Production Act, so that my colleagues know whence it comes, but it was so sweeping and it assumed such broad views that not too long back the Congress found it prudent to repeal this kind of sweeping condemnation. What is involved in the condemnation of the pipeline, I want to repeat to my colleagues, is that I am not satisfied that the pipeline could be condemned because I am not sure that the language of this, as drawn, relates to pipelines.

But, more importantly, it must be observed that it is tied to the national defense, and I am not satisfied that the taking of this pipeline would fall under the kind of findings that would have to be made here to satisfy the national defense requirements of this particular bill. But, it would authorize sweeping condemnation of goods and supplies, of equipment, of almost anything else with almost no let or hindrance, and almost absolute assumption of liability by the people of the United States. I do not know what would be precisely involved in the taking of that pipeline. It probably would be a couple billion dollars, and the interest and costs would commence almost immediately. Those Members who have practiced law and know anything about the law of condemnation know very well that when we condemn, it costs vastly more than a negotiated sale.

To give the Members an example, I sit on the Migratory Bird Commission, and we will never, in the approval or purchase of refuges, permit the use of condemnation except in the most extreme cases. The reason is because the cost is always at least once and a half, and usually about twice as high as if we go through the negotiated sale, in spite of the wasted time in the negotiated sale.

Mr. GORE. Mr. Chairman, will the gentleman yield?

Mr. DINGELL. I yield to the gentleman from Tennessee, since I used his name.

Mr. GORE. I thank the gentleman very much. Section 702 of the Defense Production Act defines the term "national defense" as including programs for military and energy production, or construction, so it is clear that under the definition of national defense in the act, which this amendment amends, the pipeline of Sohio would be covered.

Mr. DINGELL. That is quite possible, but I would point to my good friend and remind him that not only can the Sohio pipeline be condemned in the name of national defense under this language, but under this enormously sweeping language anything else in this country can be condemned under the same process.

I would point out that that is an enormously perilous power and one which prudence found it fit to take back from the President.

Mr. RUNNELS. Mr. Chairman, will the gentleman yield?

Mr. DINGELL. I yield to the gentleman from New Mexico.

Mr. RUNNELS. I thank my friend, the gentleman from Michigan.

The gentleman from Tennessee (Mr. Gore) has referred to the Sohio pipeline. I think if he will check the pipeline, he will find it is El Paso Natural Gas, and not 1 inch belongs to Sohio.

Mr. DINGELL. May I say further that under this, barges, railroads, factories, refineries, oil wells, pipelines, and God knows what else, would be subject to seizure and condemnation.

I urge my colleague to agree to my preferential motion.

Mr. GORE. Mr. Chairman, I seek recognition to speak against the preferential motion. Mr. Chairman, I will try not to take all of the time, but basically this problem is as follows. We have a surplus of oil on the west coast. We need to get it to the east coast. It costs \$1.50 per barrel to put it in tankers and bring it all the way down to the Panama Canal. It costs \$1.20 to ship it by the pipeline. The pipeline already exists. It is a natural gas pipeline that flows from east to west. The project has been sat on by El Paso, which owns it, and by Sohio, which has contractual rights to change the flow of the pipeline and put it into operation. This amendment restores the authority that was in the Defense Production Act that expired in 1953. This does not order the President to do it. It gives the President the authority to do it for the next 12 months if the Administration needs the leverage that this gives him in order to get Sohio and El Paso to move and begin flowing this oil from California to the east coast.

Mr. DICKS. Mr. Chairman, will the gentleman yield?

Mr. GORE. I yield to the gentleman from Washington.

Mr. DICKS. I just want to point out to my good friend from Tennessee (Mr. Gore) that there is a 230-mile gap in the pipeline.

Mr. GORE. That is correct.

Mr. DICKS. The second problem that exists is would this have the effect of overriding State laws or State signing positions?

Mr. GORE. It is the intent of the author of the amendment that it be used in circumstances where the relevant parties, including the State governments, have worked this out. That is true with what is known as the Sohio pipeline. The only entity standing in the way in that case is the pipeline company. It is intended to apply specifically to that case.

Mr. WRIGHT. Mr. Chairman, will the gentleman yield?

Mr. GORE. I yield to the distinguished majority leader.

Mr. WRIGHT. I thank the gentleman for yielding.

What the gentleman from Tennessee (Mr. Gore) says with respect to the pipeline is quite true. There is a need unquestionably to make available that pipeline. Whether it be by this means or by some other means to be presented in this Congress at a later time, I think it is incumbent upon us to do whatever becomes necessary to make available the capacity of that pipeline to bring some 400,000 barrels a day to the East from Alaska that otherwise cannot be recovered, and to help the American consumer by reducing, as the gentleman from Tennessee has pointed out, the per-barrel cost of transportation through the Panama Canal.

Mr. GORE. I thank the majority leader.

Mr. BROWN of Ohio. Mr. Chairman, will the gentleman yield?

Mr. GORE. I yield to the gentleman from Ohio.

Mr. BROWN of Ohio. I thank the gentleman for yielding.

I do think the gentleman misspoke himself slightly. The Standard Oil Co., spent over \$55 million over a 4-year period trying to get that

pipeline licensed for the State of California. Someone with a funny last name out there, who is the Governor, managed to stand in the way of that project for a substantial period of time. That is why the pipeline is not economical.

Mr. GORE. Reclaiming my time, the spirit and intent of the language of the legislation is to get moving. When we get to the point where it is needed to produce synthetics, if the President can use this authority to get the project going, I think he ought to have the authority.

Mr. SEIBERLING. Mr. Chairman, will the gentleman yield?

Mr. GORE. I yield to the gentleman from Ohio.

Mr. SEIBERLING. The House Interior Committee about 2 months ago reported out a bill to provide for the expedited work in getting this pipeline into operation, and I do not think that this is a very sound way to legislate that, at the 11th hour without having any hearings, without knowing what the implications are. And we have a bill. All the leadership has to do is to call it up and we can dispose of the pipeline question.

Mr. GORE. Reclaiming my time, one can do whatever he wants with the environmental permits, and it still will not get the pipeline into operation. If the company does not want to do it, let us do it ourselves.

The CHAIRMAN. The time of the gentleman from Tennessee (Mr. Gore) has expired.

The question is on the preferential motion offered by the gentleman from Michigan (Mr. Dingell).

The preferential motion was rejected.

The CHAIRMAN. Are there Members who wish to speak on the amendment?

If not, the question is on the amendment offered by the gentleman from Tennessee (Mr. Gore).

The amendment was rejected.

AMENDMENT OFFERED BY MR. OTTINGER

Mr. OTTINGER. Mr. Chairman, I offer an amendment.

The Clerk read as follows:

Amendment offered by Mr. Ottinger: Page 11, after line 6, add a new section 5 and renumber the subsequent section, as follows:

REPORTS

Sec. 5. (a) The President will report to Congress immediately after all actions taken under this legislation on contracts, loan guarantees, loans, price supports and other subsidies where the combined commitment of the Government could exceed \$500 million, including the terms and conditions of all such commitments.

(b) Beginning one year after the effective date of this act and annually thereafter, the President shall submit a report to Congress on all actions taken under this act.

Mr. OTTINGER. Mr. Chairman, whereas we could not get prior approval of these major contracts, this says at least when they get to the point where they can commit the Government to a half billion dollars, they have got to report to us immediately. That would at least exert some kind of restraint, because in these major contracts they will know there will be an immediate review afterward.

**AMENDMENT OFFERED BY MR. M'KINNEY AS A SUBSTITUTE FOR THE
AMENDMENT OFFERED BY MR. OTTINGER**

Mr. McKINNEY. Mr. Chairman, I offer an amendment as a substitute for the amendment.

The Clerk read as follows:

Amendment offered by Mr. McKinney as a substitute for the amendment offered by Mr. Ottinger: Page 11, after line 6, add a new section 5 and renumber the subsequent section as follows:

Sec. 5. Beginning one year after the effective date of this section, and annually thereafter, the President shall submit a report to the Congress on actions taken under this section.

Mr. McKINNEY. Briefly, Mr. Chairman, this is the form in which the chairman of the committee and I, the ranking member, have agreed we would accept this amendment. It calls for a report beginning 1 year after the effective date and every year thereafter from the President on actions taken under this section.

The **CHAIRMAN.** The question is on the amendment offered by the gentleman from Connecticut (Mr. McKinney) as a substitute for the amendment offered by the gentleman from New York (Mr. Ottinger).

The amendment offered as a substitute for the amendment was agreed to.

The **CHAIRMAN.** The question is on the amendment offered by the gentleman from New York (Mr. Ottinger), as amended.

The amendment, as amended, was agreed to.

AMENDMENT OFFERED BY MR. DANNEMEYER

Mr. DANNEMEYER. Mr. Chairman, I offer an amendment.

The Clerk read as follows:

Amendment offered by Mr. Dannemeyer: Page 11, after line 6, insert the following new section:

**REMOVAL OF CERTAIN CONTROLS IMPEDING PRODUCTION OF PETROLEUM
AND NATURAL GAS**

Sec. 5 Title VII of the Defense Production Act of 1950 is amended by adding at the end thereof the following new section:

"**Sec. 721.** Effective beginning 30 days after the date of the enactment of this section, allocation and maximum lawful price restrictions imposed on crude oil, natural gas, and refined petroleum products, by the provisions of this Act or any other law, and the authority to impose such restrictions under such provisions, is terminated."

Page 11, line 8, strike out "Sec. 5" and insert "Sec. 6".

Page 11, line 9, strike out the period and insert: "; except the amendment made by section 5, which shall take effect on the date of the enactment of this Act."

Mr. DANNEMEYER (during the reading). Mr. Chairman, I ask unanimous consent that the amendment be considered as read and printed in the Record.

The **CHAIRMAN.** Is there objection to the request by the gentleman from California?

Mr. DINGELL. I object, Mr. Chairman.

The **CHAIRMAN.** Objection is heard.

Mr. DINGELL (during the reading). Mr. Chairman, I reserve a point of order on the amendment.

Mr. MOORHEAD of Pennsylvania (during the reading). Mr. Chairman, I make a point of order against the amendment.

The CHAIRMAN. The Clerk has not completed the reading.

The Clerk concluded the reading of the amendment.

POINT OF ORDER

Mr. MOORHEAD of Pennsylvania. I make a point of order against the amendment, Mr. Chairman.

The CHAIRMAN. The gentleman will state his point of order.

Mr. MOORHEAD of Pennsylvania. The bill before us is a narrowly drawn bill dealing with the production of synthetic fuel. This amendment talks about lawful price restriction by the provision of this act or any other law. It far exceeds the scope of the legislation before the Committee and the amendment is not in order.

The CHAIRMAN. Does the gentleman from California desire to be heard?

Mr. DANNEMEYER. Yes, Mr. Chairman.

Title 3 of the bill before the House deals with the expansion of productive capacity and supply. The amendment which I have tendered will remove certain controls impeding production of petroleum and natural gas. I submit on that basis it is germane, it is appropriate for us to consider to remove what really is the cause of the shortage of oil in this country; namely, the law that this Congress has enacted. It is not the oil companies or the OPEC nations. It is this place right here.

If we want to have more oil, take the price off and that is the way to do it.

The CHAIRMAN. The Chair is prepared to rule.

The provisions of the act before the Committee relate solely to production of fuels for the national defense. The amendment offered by the gentleman from California effectively modifies the Petroleum Allocation Act and other laws not amended by the bill before us and the Chair sustains the point of order.

Are there further amendments to the bill?

The Chair will advise the Members of the Committee that all time under the unanimous-consent agreement has expired.

Are there further amendments to the bill?

If not, under the rule the Committee rises.

Accordingly, the Committee rose; and the Speaker having resumed the chair, Mr. STUDDS, Chairman of the Committee of the Whole House on the State of the Union, reported that that Committee, having had under consideration the bill, H.R. 3930, to amend the Defense Production Act of 1950 to extend the authority granted by such act to provide for the purchase of synthetic fuels and synthetic chemical feedstocks, and for other purposes, pursuant to House Resolution 324, he reported the bill back to the House with sundry amendments adopted by the Committee of the Whole.

The SPEAKER pro tempore (Mr. Wright). Under the rule, the previous question is ordered.

Is a separate vote demanded on any amendment? If not, the Chair will put them en gros.

The amendments were agreed to.

The SPEAKER pro tempore. The questions is on the engrossmen and third reading of the bill.

The bill was ordered to be engrossed and read a third time, and was read the third time.

MOTION TO RECOMMIT OFFERED BY MR. PAUL

Mr. PAUL. Mr. Speaker, I offer a motion to recommit.

The SPEAKER pro tempore. Is the gentleman opposed to the bill

Mr. PAUL. I am, Mr. Speaker.

The SPEAKER pro tempore. The Clerk will read the amendment

The Clerk read as follows:

Mr. Paul moves to recommit the bill, H.R. 3930, to the Committee on Banking Finance and Urban Affairs.

The SPEAKER pro tempore. Without objection, the previous question is ordered on the motion to recommit.

There was no objection.

The SPEAKER pro tempore. The question is on the motion to recommit.

The motion to recommit was rejected.

The SPEAKER pro tempore. The question is on the passage of the bill

Mr. MILLER of Ohio. Mr. Speaker, on that I demand the yeas and nays.

The yeas and nays were ordered.

The vote was taken by electronic device, and there were—yeas 368 nays 25, answered "present" 1, not voting 40, as follows:

[Roll No. 284]

YEAS—368

Abdnor
Addabbo
Akaka
Albosta
Alexander
Ambro
Anderson,
Calif.
Andrews, N.C.
Andrews,
N. Dak.
Annunzio
Anthony
Applegate
Archer
Ashbrook
Ashley
Aspin
Atkinson
AuCoin
Badham
Bailey
Baldus
Barnard
Barnes
Beard, R.I.

Beard, Tenn.
Bedell
Benjamin
Bennett
Bereuter
Bethune
Bevill
Biaggi
Bingham
Blanchard
Boggs
Boland
Boner
Bonior
Bonker
Bouquard
Bowen
Brademas
Breau
Brinkley
Brodhead
Brooks
Broomfield
Brown, Calif.
Brown, Ohio
Broyhill

Buchanan
Burgener
Burlison
Byron
Campbell
Carney
Carter
Cavanaugh
Chappell
Cheney
Chisholm
Clausen
Clay
Cleveland
Clinger
Coelho
Coleman
Collins, Ill.
Conable
Conte
Corcoran
Corman
Cotter
Coughlin
Courter
Crane, Philtp

YEAS—Continued

D'Amours	Gore	Lent
Daniel, Dan	Gradison	Levitas
Daniel, R. W.	Gramm	Lewis
Danielson	Grassley	Livingston
Daschle	Gray	Lloyd
Davis, Mich.	Green	Loeffler
Davis, S.C.	Grisham	Long, Md.
de la Garza	Guarini	Lott
Deckard	Hagedorn	Lowry
Derrick	Hall, Ohio	Lujan
Derwinski	Hall, Tex.	Luken
Devine	Hamilton	Lundine
Dickinson	Hammer-	Langren
Dicks	schmidt	McCloskey
Dingell	Hance	McCormack
Dixon	Hanley	McDade
Dodd	Harkin	McEwen
Donnelly	Harris	McHugh
Dornan	Harsha	McKay
Dougherty	Hawkins	McKinney
Drinan	Heckler	Madigan
Duncan, Oreg.	Hefner	Maguire
Duncan, Tenn.	Heftel	Markey
Early	Hightower	Marks
Edgar	Hillis	Martin
Edwards, Ala.	Hinson	Matsui
Edwards, Calif.	Holland	Mattox
Edwards, Okla.	Hollenbeck	Mavroules
Emery	Holt	Mica
Erdahl	Horton	Michel
Erlenborn	Howard	Miller, Calif.
Ertel	Hubbard	Miller, Ohio
Evans, Del.	Huckaby	Mineta
Evans, Ga.	Hughes	Minish
Evans, Ind.	Hutto	Mitchell, Md.
Fary	Hyde	Mitchell, N.Y.
Fascell	Ichord	Moakley
Fazio	Ireland	Moffett
Fenwick	Jeffords	Mollohan
Ferraro	Jenkins	Montgomery
Findley	Johnson, Calif.	Moorhead, Pa.
Fish	Johnson, Colo.	Mottl
Fisher	Jones, N.C.	Murphy, Ill.
Fithian	Jones, Tenn.	Murphy, Pa.
Flippo	Kastenmeier	Murtha
Florio	Kazen	Myers, Ind.
Foley	Kelly	Myers, Pa.
Ford, Mich.	Kildee	Natcher
Ford, Tenn.	Kindness	Neal
Fountain	Kogovsek	Nedzi
Frenzel	Kostmayer	Nelson
Frost	Kramer	Nichols
Fuqua	LaFalce	Nolan
Garcia	Lagomarsino	Nowak
Gaydos	Latta	O'Brien
Gephardt	Leach, Iowa	Oakar
Gibbons	Leach, La.	Obey
Gilman	Leath, Tex.	Ottinger
Gingrich	Lederer	Panetta
Ginn	Lee	Pashayan
Glickman	Lehman	Pease
Goodling	Leland	Pepper

YEAS—Continued

Perkins
Petri
Pickle
Preyer
Price
Pritchard
Pursell
Quayle
Quillen
Rahall
Rallsback
Ratchford
Regula
Reuss
Rhodes
Richmond
Rinaldo
Ritter
Robinson
Rodino
Roe
Rose
Rosenthal
Rostenkowski
Roth
Roybal
Royer
Rudd
Runnels
Russo
Sabo
Santini
Sawyer
Scheuer
Schroeder
Schulze

Sebelius
Selberling
Sensenbrenner
Shannon
Sharp
Shelby
Shumway
Shuster
Skelton
Slack
Smith, Iowa
Smith, Nebr.
Snowe
Snyder
Solars
Solomon
Spence
St Germain
Stack
Staggers
Stangeland
Stanton
Steed
Stenholm
Stewart
Stokes
Stratton
Studds
Stump
Swift
Tauke
Taylor
Thomas
Traxler
Treen
Trible

Udall
Van Deerlin
Vander Jagt
Vanik
Vento
Volkmer
Walgren
Walker
Wampler
Watkins
Waxman
Weiss
White
Whitehurst
Whitley
Whittaker
Whiten
Williams, Ohio
Wilson, Bob
Wilson, C. H.
Winn
Wirth
Wolf
Wolpe
Wright
Wyatt
Wylder
Wyllie
Yates
Yatron
Young, Alaska
Young, Fla.
Young, Mo.
Zablocki
Zeferetti

NAYS—25

Bauman
Burton, John
Burton, Phillip
Collins, Tex.
Crane, Daniel
Dannemeyer
Dellums
Eckhardt
Fowler

Goldwater
Gonzalez
Hansen
Jacobs
Jones, Okla.
Kemp
McDonald
Marienée
Moore

Moorhead, Calif.
Paul
Rousselot
Symms
Synar
Weaver
Williams, Mont.

ANSWERED "PRESENT"—1

Bafalis

NOT VOTING—40

Anderson, Ill.
Bellenson
Bolling
Butler
Carr
Conyers
Diggs
Downey
English
Flood
Forsythe
Glavin
Glavin
Glavin

Holtzman
Hopkins
Jeffries
Jenrette
Long, La.
McClory
Marriott
Mathis
Mazoli
Mikulski
Mikva
Murphy, N.Y.
Oberstar
Patten

Patterson
Peyser
Rangel
Roberts
Satterfield
Simon
Spellman
Stark
Stockman
Thompson
Ullman
Wilson, Tex.

The Clerk announced the following pairs:

Ma. Holtzman with Mr. Gudger.
 Mr. Thompson with Mr. Satterfield.
 Mr. Downey with Mr. Butler.
 Mr. Rangel with Mr. Simon.
 Mrs. Spellman with Mr. Marriott.
 Mr. Flood with Mr. Guyer.
 Mr. Glaimo with Mr. Forsythe.
 Mr. Murphy of New York with Mr. Hopkins.
 Mr. Mikva with Mr. Jeffries.
 Mr. Patten with Mr. McClory.
 Mr. Patterson with Mr. Conyers.
 Mr. Ullman with Mr. Diggs.
 Mr. Roberts with Mr. Carr.
 Mr. Long of Louisiana with Mr. Peyser.
 Mr. Massoli with Mr. Charles Wilson of Texas.
 Mr. Mathis with Ms. Mikulski.
 Mr. English with Mr. Stark.
 Mr. Jenrette with Mr. Oberstar.

Mr. Jones of Oklahoma and Mr. Simon changed their vote from "yea" to "nay."

So the bill was passed.

The result of the vote was announced as above recorded.

A motion to reconsider was laid on the table.

GENERAL LEAVE

Mr. MOORHEAD of Pennsylvania. Mr. Speaker, I ask unanimous consent that all Members may have 5 legislative days in which to revise and extend their remarks, and include extraneous material, on the bill just passed.

The SPEAKER. Is there objection to the request of the gentleman from Pennsylvania?

There was no objection.

Mr. MOORHEAD of Pennsylvania. Mr. Speaker, I ask unanimous consent to take from the Speaker's table the Senate bill (S. 932) to extend the Defense Production Act of 1950, as amended, and ask for its immediate consideration.

The Clerk read the title of the Senate bill.

The SPEAKER. Is there objection to the request of the gentleman from Pennsylvania?

There was no objection.

The Clerk read the Senate bill, as follows:

S. 932

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That this Act may be cited as the "Defense Production Act Extension Amendments of 1979".

SEC. 2. The first sentence of section 717(a) of the Defense Production Act of 1950 (50 U.S.C. App. 2160a) is amended by striking out "September 30, 1979" and inserting in lieu thereof "September 30, 1981".

MOTION OFFERED BY MR. MOORHEAD OF PENNSYLVANIA

Mr. MOORHEAD of Pennsylvania. Mr. Speaker, I offer a motion. The Clerk read as follows:

Mr. Moorhead of Pennsylvania moves to strike all after the enacting clause of the Senate bill, S. 932, and to insert in lieu thereof the provisions of H.R. 3930, as passed by the House, as follows:

SHORT TITLE

SECTION 1. This Act may be cited as the "Defense Production Act Amendments of 1979".

DECLARATION OF POLICY

SEC. 2. The second sentence of section 2 of the Defense Production Act of 1950 (50 U.S.C. App. 2062) is amended by striking out the period at the end thereof and inserting in lieu thereof "or to respond to actions occurring outside of the United States which could result in the termination or reduction of the availability of strategic and critical materials, including petroleum, and which would adversely affect the national defense preparedness of the United States. In order to insure the national defense preparedness which is essential to national security, it is also necessary and appropriate to achieve greater independence in domestic energy supplies."

EXPANSION OF PRODUCTIVE CAPACITY AND SUPPLY

SEC. 3. (a) Section 301(a) of the Defense Production Act of 1950 (50 U.S.C. App. 2029) is amended by striking out "The Department of the Army, the Department of the Navy, the Department of the Air Force, the Department of Commerce," and inserting in lieu thereof "the Department of Defense, the Department of Energy, the Department of Commerce, the Tennessee Valley Authority,".

(b) Section 301(e) (1) of the Defense Production Act of 1950 (50 U.S.C. App. 2091(e) (1)) is amended—

(1) by striking out "Except with the approval of the Congress, the" and inserting in lieu thereof "The"; and

(2) by striking out "\$20,000,000." and inserting in lieu thereof "\$38,000,000, unless the Committees on Armed Services of the Senate and the House of Representatives have been notified in writing of such proposed obligation and 60 days of continuous session of Congress have expired following the date on which such notice was transmitted to such committees and neither House of Congress has adopted, within such 60-day period, a resolution disapproving such obligation. For purposes of this section, the continuity of a session of Congress is broken only by an adjournment of the Congress sine die, and the days on which either House is not in session because of an adjournment of more than 3 days to a day certain are excluded in the computation of such 60-day period."

(c) Section 302 of the Defense Production Act of 1950 (50 U.S.C. App. 2092) is amended—

(1) in the first sentence, by striking out ", and manufacture of newsprint" and inserting in lieu thereof ", manufacture of newsprint, and production of energy"; and

(2) in the second sentence, by striking out "\$25,000,000" and inserting in lieu thereof "\$48,000,000".

(d) (1) Section 303(a) of the Defense Production Act of 1950 (50 U.S.C. App. 2093(a)) is amended by striking out "and mining of critical and strategic minerals and metals" and inserting in lieu thereof "mining, and production of critical and strategic minerals, metals, and materials".

(2) Section 303(b) of the Defense Production Act of 1950 (50 U.S.C. App. 2093(b)) is amended by striking out "September 30, 1985" and inserting in lieu thereof "September 30, 2015".

(3) Section 303(g) of the Defense Production Act of 1950 (50 U.S.C. App. 2093(g)) is amended by striking out "and upon a certification" and all that follows through "other national emergency,".

(e) Title III of the Defense Production Act of 1950 (50 U.S.C. App. 2091-2094) is amended by adding at the end thereof the following new section:

"Sec. 305. (a) The President, utilizing the provisions of this Act and any other applicable provision of law, shall achieve a national production goal of at least 100,000 barrels per day crude oil equivalent of synthetic fuels and synthetic chemical feedstocks not later than five years after the effective date of this section and at least 2,000,000 barrels per day crude oil equivalent of synthetic fuels and synthetic chemical feedstocks not later than ten years after the effective date of this section. The President is authorized and directed to require fuel and chemical feedstock suppliers to provide synthetic fuels and synthetic chemical feedstocks in any case in which the President deems it practicable and necessary to meet the national defense needs of the United States.

"(b) To assist in carrying out the objectives of this section, the President, subject to subsections (c) and (d), shall—

"(1) contract for purchases of or commitments to purchase synthetic fuels and synthetic chemical feedstocks which may be used as fuels and feedstocks for Government use or resale for use conducive to defense needs or for use in the United States, its possessions or territories, or by domestic users; and

"(2) encourage the development and production of such synthetic fuels and synthetic chemical feedstocks for national defense preparedness.

"(c) Purchases, commitments to purchase, and resales under subsection (b) may be made without regard to the limitations of existing law, regarding the procurement of goods or services by the Federal Government, except as provided in section 717(a) of this Act, for such quantities, and on such terms and conditions, including advance payments, and for such periods as the President deems necessary, except that—

"(1) no contract for purchases or commitments to purchase may be entered into after September 30, 1995, or the achievement of the production goals authorized in subsection (a), whichever occurs first; and

"(2) purchases or commitments to purchase involving higher than established ceiling prices (or if there are no established ceiling prices, currently prevailing market prices as determined by the Secretary of Energy) or anticipated loss on resale shall not be made unless it is determined that supply of synthetic fuels and synthetic chemical feedstocks could not be effectively increased at lower prices or on terms more favorable to the Government, or that such purchases are necessary to assure the availability to the United States of supplies overseas for national defense purposes.

"(d) (1) Except as provided in paragraph (2), any purchase or commitment to purchase synthetic fuels and synthetic chemical feedstocks under subsection (b) shall be made by sealed competitive bidding.

"(2) In any case in which no such bids are submitted to the President or the President determines that no such bids have been submitted which are acceptable to the President, the President may negotiate contracts for such purchases and commitments to purchase.

"(3) Any contract for such purchases or commitments to purchase shall provide that the President retains the right to refuse delivery of the synthetic fuels and synthetic chemical feedstocks involved and to pay the person involved an amount equal to the amount by which the price for such synthetic fuels and synthetic chemical feedstocks as specified in the contract involved exceeds the market price, as determined by the Secretary of Energy, for such synthetic fuels and synthetic chemical feedstocks on the delivery date specified in such contract.

"(4) (A) With respect to any person, including any other person who is substantially controlled by such person (as determined by the Secretary of Energy), the President may not award contracts for the purchase or commitment to purchase more than 100,000 barrels per day equivalent of synthetic fuels and synthetic chemical feedstocks.

With respect to any person, including any other person who is substantially controlled by such person (as determined by the Secretary of Energy), the President may not award contracts for the purchase or commitment to purchase more than 75,000 barrels per day equivalent of synthetic fuels and synthetic chemical feedstocks unless both Houses of Congress have been notified in writing of such proposed contracts or commitments and 30 days of continuous session of Congress have expired following the date on which such notice was transmitted to the Congress and neither House of Congress has adopted, within such 30-day period, a resolution disapproving such proposed contracts.

"(B) Contracts for the purchase or commitment to purchase synthetic fuels or synthetic chemical feedstocks may be entered into only for synthetic fuels or synthetic chemical feedstocks which are produced in facilities which are located in the United States.

"(C) For purposes of this paragraph, the term 'United States' means the several States, the District of Columbia, the Commonwealth of Puerto Rico, Guam, the Virgin Islands, the Northern Mariana Islands, the Trust Territory of the Pacific Islands, or any other territory or possession of the United States.

"(5) In any case in which the President, under the provisions of this section, accepts delivery of and does not resell any synthetic fuels or synthetic chemical feedstocks, such synthetic fuels or synthetic chemical feedstocks shall be used by the appropriate Federal agency. Such Federal agency shall pay the market price as determined by the Secretary of Energy, for such synthetic fuels or synthetic chemical feedstocks from sums appropriated to such Federal agency for the purchase of fuels and feedstocks and the President shall pay, from sums appropriated for such purpose under the second sentence of section 711(a), an amount equal to the amount by which the contract price for such synthetic fuels and synthetic chemical feedstocks as specified in the contract involved exceeds such market price.

"(6) In considering any proposed contract under this section, the President shall take into account the socio-economic impacts on communities which would be affected by any new or expanded facilities required for the production of the fuel or feedstocks under that contract.

"(e) The procurement power granted to the President by this section shall include the power to transport and store and have processed and refined any products under this section.

"(f) When in his judgment it will aid the national defense, the President is authorized to install additional equipment, facilities, processes, or improvements to plants, factories, and other industrial facilities owned by the United States Government, and to install Government-owned equipment in plants, factories, and other industrial facilities owned by private persons.

"(g) Each Federal officer and agency having authority to issue any permit for, or to otherwise approve or authorize, the construction or operation of any facility which is to produce any synthetic fuel or synthetic chemical feedstock for which the President has contracted (or entered into a commitment to contract) under this section shall, to the maximum extent practicable—

"(1) expedite all actions necessary for the issuance of such permit, approval, or authorization, and

"(2) take steps designed to result in final action thereon not later than 12 months after the date application for such permit, approval, or authorization is made.

After taking any such action, such officer or agency shall publish notification thereof in the Federal Register.

"(h) (1) Subject to paragraph (2), the President is authorized to organize corporations for purposes of achieving the production goals authorized in subsection (a). Any such corporation shall have the power—

"(A) to produce and acquire synthetic fuels and synthetic chemical feedstocks; and

"(B) for purposes of producing synthetic fuels and synthetic chemical feedstocks—

"(i) to purchase and lease land;

"(ii) to purchase, lease, build, and expand plants;

"(iii) to lease such plants to any person; and

"(iv) to purchase and produce equipment, supplies, and machinery.

"(2) No such corporation may be organized unless both Houses of Congress have been notified in writing of the proposed organization of such corporation and 60 days of continuous session of Congress have expired following the date on which such notice was transmitted to both Houses of Congress and neither House of Congress has adopted, within such 60-day period, a resolution disapproving such organization of such corporation. For purposes of this section, the continuity of a session of Congress is broken only by an adjournment of the Congress sine die, and the days on which either House is not in session because of an adjournment of more than 3 days to a day certain are excluded in the computation of such 60-day period.

"(3) Any corporation organized pursuant to the provisions of this subsection shall be subject to the provisions of the Government Corporation Control Act (31 U.S.C. 841-870) and shall for the purposes of such Act be deemed to be wholly-owned government corporations as defined in section 101 of such Act (31 U.S.C. 846).

"(i) Notwithstanding any other provision of law, products acquired pursuant to the provisions of this section which, in the judgment of the President, are excess to the needs of programs under this section, shall be transferred to the national stockpile established pursuant to the Strategic and Critical Materials Stock Piling Act (50 U.S.C. 98 *et seq.*) or to the Strategic Petroleum Reserve, when the President deems such action to be in the public interest.

"(j) For the purposes of this section, the terms 'synthetic fuels' and 'synthetic chemical feedstocks' mean fuels and chemical feedstocks produced by the conversion of renewable and nonrenewable resources, including, but not limited to, products produced from coal gasification, coal liquefaction, shale, tar sands, lignite, peat, solid waste, and other mineral gasification, liquefaction or other conversion, and the conversion of any organic material into fuel.

Such term includes fuels and chemical feedstocks produced from tar sands and heavy oils if the hydrocarbon content thereof has a gravity of 15 degrees or less (API). For purposes of applying the preceding sentence, the President may substitute a higher gravity rating (API) for 15 degrees in any case in which he determines that the application of the higher gravity rating would further the purposes of this section.

"(k) Nothing in this Act shall be construed to authorize the President to institute, without the approval of the Congress, a program for the rationing of gasoline among classes of end-users."

GENERAL PROVISIONS

SEC. 4. (a) Section 702(d) of the Defense Production Act of 1950 (50 U.S.C. App. 2152(d)) is amended by striking out "atomic".

(b) The first sentence of section 703(a) of the Defense Production Act of 1950 (50 U.S.C. App. 2153(a)) is amended by inserting "(except as provided in section 305)" after "other than corporate agencies".

(c) Section 711(a) of the Defense Production Act of 1950 (50 U.S.C. App. 2161(a)) is amended—

(1) by striking out "There" and inserting in lieu thereof "Except as provided in the following sentence, there"; and

(2) by inserting after the first sentence the following new sentence: "There are hereby authorized to be appropriated without fiscal year limitation from general funds of the Treasury not otherwise appropriated or from any fund hereafter established by Congress after the date of enactment of this sentence not to exceed \$3,000,000,000, which shall remain available until expended, to make payments in accordance with the contract provisions specified in section 305(d) (3) and with the provisions of section 305(d) (5)."

(d) The first sentence of section 717(a) of the Defense Production Act of 1950 (50 U.S.C. App. 2166(a)) is amended by striking out "September 30, 1979" and inserting in lieu thereof "September 30, 1980".

(e) Section 701(d) of the Defense Production Act of 1950 (50 U.S.C. App. 2151(d)) is amended by striking out "Defense Production Act Amendments of 1955" and inserting in lieu thereof "Defense Production Act Amendments of 1979".

SEC. 5. Beginning one year after the effective date of this section, and annually thereafter, the President shall submit a report to the Congress on actions taken under this section.

EFFECTIVE DATE

SEC. 6. The amendments made by this Act shall take effect on October 1, 1979.

The motion was agreed to.

The Senate bill was ordered to be read a third time, was read the third time, and passed.

The title was amended so as to read: "To amend the Defense Production Act of 1950 to extend the authority granted by such Act and

to provide for the purchase of synthetic fuels and synthetic chemical feedstocks, and for other purposes."

A motion to reconsider was laid on the table.

A similar House bill (H.R. 3930) was laid on the table.

APPOINTMENT OF CONFEREES ON S. 932

Mr. MOORHEAD of Pennsylvania. Mr. Speaker, I ask unanimous consent that the House insist on its amendments to the Senate bill, S. 932, and request a conference with the Senate thereon.

The SPEAKER. Is there objection to the request of the gentleman from Pennsylvania? The Chair hears none, and appoints the following conferees: Messrs. Reuss, Moorhead of Pennsylvania, Ashley, Wright, Blanchard, Vento, Stanton, McKinney, and Kelly.

AUTHORIZING THE CLERK TO MAKE TECHNICAL AND CONFORMING CORRECTIONS IN THE ENGROSSMENT OF S. 932

Mr. MOORHEAD of Pennsylvania. Mr. Speaker, I ask unanimous consent that the Clerk be given authority to make technical and conforming corrections in the engrossment of the House amendments to the Senate bill, S. 932, as passed by the House.

The SPEAKER. Is there objection to the request of the gentleman from Pennsylvania?

There was no objection.

**8. S. 932 (PREVIOUSLY H.R. 3930) AS PASSED BY THE U.S.
HOUSE OF REPRESENTATIVES, JUNE 26, 1979**

[COMMITTEE PRINT]

JULY 6, 1979

(Note: The following is the engrossed bill S. 932, passed by the House of Representatives June 26, 1979. Previously, the House Banking, Finance and Urban Affairs Committee reported H.R. 3930 on May 8, 1979.)

In the House of Representatives, U. S.,

June 26, 1979.

Resolved, That the bill from the Senate (S. 932) entitled "An Act to extend the Defense Production Act of 1950, as amended", do pass with the following

AMENDMENTS:

Strike out all after the enacting clause, and insert:

SHORT TITLE

SECTION 1. *This Act may be cited as the "Defense Production Act Amendments of 1979".*

DECLARATION OF POLICY

SEC. 2. *The second sentence of section 2 of the Defense Production Act of 1950 (50 U.S.C. App. 2062) is amended by striking out the period at the end thereof and inserting in lieu thereof "or to respond to actions occurring outside of the United States which could result in the termination or reduction of the availability of strategic and critical materials, including petroleum, and which would adversely affect the national defense preparedness of the United States. In order to insure the national defense preparedness which is essential to*

national security, it is also necessary and appropriate to achieve greater independence in domestic energy supplies."

EXPANSION OF PRODUCTIVE CAPACITY AND SUPPLY

SEC. 3. (a) Section 301(a) of the Defense Production Act of 1950 (50 U.S.C. App. 2091) is amended by striking out "the Department of the Army, the Department of the Navy, the Department of the Air Force, the Department of Commerce," and inserting in lieu thereof "the Department of Defense, the Department of Energy, the Department of Commerce, the Tennessee Valley Authority,".

(b) Section 301(e)(1) of the Defense Production Act of 1950 (50 U.S.C. App. 2091(e)(1)) is amended—

(1) by striking out "Except with the approval of the Congress, the" and inserting in lieu thereof "The"; and

(2) by striking out "\$20,000,000." and inserting in lieu thereof "\$38,000,000, unless the Committees on Armed Services of the Senate and the House of Representatives have been notified in writing of such proposed obligation and 60 days of continuous session of Congress have expired following the date on which such notice was transmitted to such committees and neither House of Congress has adopted, within such 60-day period, a resolution disapproving such obligation. For purposes of this section, the continuity of a

session of Congress is broken only by an adjournment of the Congress sine die, and the days on which either House is not in session because of an adjournment of more than 3 days to a day certain are excluded in the computation of such 60-day period."

(c) Section 302 of the Defense Production Act of 1950 (50 U.S.C. App. 2092) is amended—

(1) in the first sentence, by striking out ", and manufacture of newsprint" and inserting in lieu thereof ", manufacture of newsprint, and production of energy"; and

(2) in the second sentence, by striking out "\$25,000,000" and inserting in lieu thereof "\$48,000,000".

(d)(1) Section 303(a) of the Defense Production Act of 1950 (50 U.S.C. App. 2093(a)) is amended by striking out "and mining of critical and strategic minerals and metals" and inserting in lieu thereof "mining, and production of critical and strategic minerals, metals, and materials".

(2) Section 303(b) of the Defense Production Act of 1950 (50 U.S.C. App. 2093(b)) is amended by striking out "September 30, 1985" and inserting in lieu thereof "September 30, 2015".

(3) Section 303(g) of the Defense Production Act of 1950 (50 U.S.C. App. 2093(g)) is amended by striking out

"and upon a certification" and all that follows through "other national emergency,".

(e) Title III of the Defense Production Act of 1950 (50 U.S.C. App. 2091-2094) is amended by adding at the end thereof the following new section:

"SEC. 305. (a) The President, utilizing the provisions of this Act and any other applicable provision of law, shall achieve a national production goal of at least 500,000 barrels per day crude oil equivalent of synthetic fuels and synthetic chemical feedstocks not later than five years after the effective date of this section and at least 2,000,000 barrels per day crude oil equivalent of synthetic fuels and synthetic chemical feedstocks not later than ten years after the effective date of this section. The President is authorized and directed to require fuel and chemical feedstock suppliers to provide synthetic fuels and synthetic chemical feedstocks in any case in which the President deems it practicable and necessary to meet the national defense needs of the United States.

"(b) To assist in carrying out the objectives of this section, the President, subject to subsections (c) and (d), shall—

"(1) contract for purchases of or commitments to purchase synthetic fuels and synthetic chemical feedstocks which may be used as fuels and feedstocks for Government use or resale for use conducive to defense

needs or for use in the United States, its possessions or territories, or by domestic users; and

“(2) encourage the development and production of such synthetic fuels and synthetic chemical feedstocks for national defense preparedness.

“(c) Purchases, commitments to purchase, and resales under subsection (b) may be made without regard to the limitations of existing law, regarding the procurement of goods or services by the Federal Government, except as provided in section 717(a) of this Act, for such quantities, and on such terms and conditions, including advance payments, and for such periods as the President deems necessary, except that—

“(1) no contract for purchases or commitments to purchase may be entered into after September 30, 1995, or the achievement of the production goals authorized in subsection (a), whichever occurs first; and

“(2) purchases or commitments to purchase involving higher than established ceiling prices (or if there are no established ceiling prices, currently prevailing market prices as determined by the Secretary of Energy) or anticipated loss on resale shall not be made unless it is determined that supply of synthetic fuels and synthetic chemical feedstocks could not be effectively increased at lower prices or on terms more favorable to the Government, or that such purchases are

necessary to assure the availability to the United States of supplies overseas for national defense purposes.

“(d)(1) Except as provided in paragraph (2), any purchase or commitment to purchase synthetic fuels and synthetic chemical feedstocks under subsection (b) shall be made by sealed competitive bidding.

“(2) In any case in which no such bids are submitted to the President or the President determines that no such bids have been submitted which are acceptable to the President, the President may negotiate contracts for such purchases and commitments to purchase.

“(3) Any contract for such purchases or commitments to purchase shall provide that the President retains the right to refuse delivery of the synthetic fuels and synthetic chemical feedstocks involved and to pay the person involved an amount equal to the amount by which the price for such synthetic fuels and synthetic chemical feedstocks as specified in the contract involved exceeds the market price, as determined by the Secretary of Energy, for such synthetic fuels and synthetic chemical feedstocks on the delivery date specified in such contract.

“(4)(A) With respect to any person, including any other person who is substantially controlled by such person (as determined by the Secretary of Energy), the President may not

award contracts for the purchase or commitment to purchase more than 100,000 barrels per day equivalent of synthetic fuels and synthetic chemical feedstocks. With respect to any person, including any other person who is substantially controlled by such person (as determined by the Secretary of Energy), the President may not award contracts for the purchase or commitment to purchase of more than 75,000 barrels per day equivalent of synthetic fuels and synthetic chemical feedstocks unless both Houses of Congress have been notified in writing of such proposed contracts or commitments and 30 days of continuous session of Congress have expired following the date on which such notice was transmitted to the Congress and neither House of Congress has adopted, within such 30-day period, a resolution disapproving such proposed contracts.

“(B) Contracts for the purchase or commitment to purchase synthetic fuels or synthetic chemical feedstocks may be entered into only for synthetic fuels or synthetic chemical feedstocks which are produced in facilities which are located in the United States.

“(C) For purposes of this paragraph, the term ‘United States’ means the several States, the District of Columbia, the Commonwealth of Puerto Rico, Guam, the Virgin Islands, the Northern Mariana Islands, the Trust Territory of

the Pacific Islands, or any other territory or possession of the United States.

“(5) In any case in which the President, under the provisions of this section, accepts delivery of and does not resell any synthetic fuels or synthetic chemical feedstocks, such synthetic fuels or synthetic chemical feedstocks shall be used by the appropriate Federal agency. Such Federal agency shall pay the market price, as determined by the Secretary of Energy, for such synthetic fuels or synthetic chemical feedstocks from sums appropriated to such Federal agency for the purchase of fuels and feedstocks and the President shall pay, from sums appropriated for such purpose under the second sentence of section 711(a), an amount equal to the amount by which the contract price for such synthetic fuels and synthetic chemical feedstocks as specified in the contract involved exceeds such market price.

“(6) In considering any proposed contract under this section, the President shall take into account the socioeconomic impacts on communities which would be affected by any new or expanded facilities required for the production of the fuel or feedstocks under that contract.

“(e) The procurement power granted to the President by this section shall include the power to transport and store and have processed and refined any products procured under this section.

"(f) When in his judgment it will aid the national defense, the President is authorized to install additional equipment, facilities, processes, or improvements to plants, factories, and other industrial facilities owned by the United States Government, and to install Government-owned equipment in plants, factories, and other industrial facilities owned by private persons.

"(g) Each Federal officer and agency having authority to issue any permit for, or to otherwise approve or authorize, the construction or operation of any facility which is to produce any synthetic fuel or synthetic chemical feedstock for which the President has contracted (or entered into a commitment to contract) under this section shall, to the maximum extent practicable—

"(1) expedite all actions necessary for the issuance of such permit, approval, or authorization, and

"(2) take steps designed to result in final action thereon not later than 12 months after the date application for such permit, approval, or authorization is made.

After taking any such action, such officer or agency shall publish notification thereof in the Federal Register.

"(h)(1) Subject to paragraph (2), the President is authorized to organize corporations for purposes of achieving the

production goals authorized in subsection (a). Any such corporation shall have the power—

“(A) to produce and acquire synthetic fuels and synthetic chemical feedstocks; and

“(B) for purposes of producing synthetic fuels and synthetic chemical feedstocks—

“(i) to purchase and lease land;

“(ii) to purchase, lease, build, and expand plants;

“(iii) to lease such plants to any person; and

“(iv) to purchase and produce equipment, supplies, and machinery.

“(2) No such corporation may be organized unless both Houses of Congress have been notified in writing of the proposed organization of such corporation and 60 days of continuous session of Congress have expired following the date on which such notice was transmitted to both Houses of Congress and neither House of Congress has adopted, within such 60-day period, a resolution disapproving such organization of such corporation. For purposes of this section, the continuity of a session of Congress is broken only by an adjournment of the Congress sine die, and the days on which either House is not in session because of an adjournment of more than 3 days to a day certain are excluded in the computation of such 60-day period.

“(3) Any corporation organized pursuant to the provisions of this subsection shall be subject to the provisions of the Government Corporation Control Act (31 U.S.C. 841–870) and shall for the purposes of such Act be deemed to be wholly-owned Government corporations as defined in section 101 of such Act (31 U.S.C. 846).

“(i) Notwithstanding any other provision of law, products acquired pursuant to the provisions of this section which, in the judgment of the President, are excess to the needs of programs under this section, shall be transferred to the national stockpile established pursuant to the Strategic and Critical Materials Stock Piling Act (50 U.S.C. 98 et seq.) or to the Strategic Petroleum Reserve, when the President deems such action to be in the public interest.

“(j) For the purposes of this section, the terms ‘synthetic fuels’ and ‘synthetic chemical feedstocks’ mean fuels and chemical feedstocks produced by the conversion of renewable and nonrenewable resources, including, but not limited to, products produced from coal gasification, coal liquefaction, shale, tar sands, lignite, peat, solid waste, and other mineral gasification, liquefaction or other conversion, and the conversion of any organic material into fuel. Such term includes fuels and chemical feedstocks produced from tar sands and heavy oils if the hydrocarbon content thereof has a gravity of 15 degrees or less (API). For purposes of applying the pre-

ceding sentence, the President may substitute a higher gravity rating (API) for 15 degrees in any case in which he determines that the application of the higher gravity rating would further the purposes of this section.

“(k) Nothing in this Act shall be construed to authorize the President to institute, without the approval of the Congress, a program for the rationing of gasoline among classes of end-users.”.

GENERAL PROVISIONS

SEC. 4. (a) Section 702(d) of the Defense Production Act of 1950 (50 U.S.C. App. 2152(d)) is amended by striking out “atomic”.

(b) The first sentence of section 703(a) of the Defense Production Act of 1950 (50 U.S.C. App. 2153(a)) is amended by inserting “(except as provided in section 305)” after “other than corporate agencies”.

(c) Section 711(a) of the Defense Production Act of 1950 (50 U.S.C. App. 2161(a)) is amended—

(1) by striking out “There” and inserting in lieu thereof “Except as provided in the following sentence, there”; and

(2) by inserting after the first sentence the following new sentence: “There are hereby authorized to be appropriated without fiscal year limitation from general funds of the Treasury not otherwise appropriated or

from any fund hereafter established by Congress after the date of enactment of this sentence not to exceed \$3,000,000,000, which shall remain available until expended, to make payments in accordance with the contract provisions specified in section 305(d)(3) and with the provisions of section 305(d)(5).”

(d) The first sentence of section 717(a) of the Defense Production Act of 1950 (50 U.S.C. App. 2166(a)) is amended by striking out “September 30, 1979” and inserting in lieu thereof “September 30, 1980”.

(e) Section 701(d) of the Defense Production Act of 1950 (50 U.S.C. App. 2151(d)) is amended by striking out “Defense Production Act Amendments of 1955” and inserting in lieu thereof “Defense Production Act Amendments of 1979”.

SEC. 5. Beginning one year after the effective date of this section, and annually thereafter, the President shall submit a report to the Congress on actions taken under this section.

EFFECTIVE DATE

Sec. 6. The amendments made by this Act shall take effect on October 1, 1979.

Amend the title so as to read: "An Act to amend the Defense Production Act of 1950 to extend the authority granted by such Act and to provide for the purchase of synthetic fuels and synthetic chemical feedstocks, and for other purposes."

Attest:

Clerk.

9. DEBATE IN THE U.S. SENATE ON S. 932

November 5, 1979

BUDGET ACT WAIVERS

Mr. ROBERT C. BYRD. Mr. President, this request has been cleared with the distinguished minority leader.

I send to the desk two budget waiver resolutions, Senate Resolution 233 and Senate Resolution 268, which have to do with the energy legislation coming up today; that reported out of Mr. Proxmire's committee and that reported out of Mr. Jackson's committee. I ask unanimous consent that the resolutions be considered en bloc.

The ACTING PRESIDENT pro tempore. Is there objection? Without objection, it is so ordered.

The resolution (S. Res. 233) waiving section 402(a) of the Congressional Budget Act of 1974 with respect to the consideration of S. 932, was considered and agreed to, as follows:

Resolved, That pursuant to section 402(c) of the Congressional Budget Act of 1974, the provisions of section 402(a) of such Act are waived with respect to the consideration of S. 932. Such waiver is necessary because S. 932 authorizes the enactment of new budget authority which would first become available in fiscal year 1979, and such bill was not reported on or before May 15, 1979, as required by section 402(a) of the Congressional Budget Act of 1974 for such authorizations.

Compliance with section 402(a) of the Congressional Budget Act of 1974 was not possible in the instance because proposals to reduce oil imports through increased residential and commercial energy conservation measures and through expanded production of alcohol fuels had not been formulated by May 15. This expanded role of conservation and alcohol in reducing our dependence on imported oil was not foreseen at the time the previous authorization was approved.

The effect of defeating consideration of this authorization will be to impede seriously this important effort to reduce our oil imports and rapidly rising residential and commercial utility bills.

The resolution (S. Res. 268) waiving section 402(a) of the Congressional Budget Act of 1974 with respect to the consideration of S. 932, was considered and agreed to, as follows:

Resolved, That pursuant to section 402(c) of the Congressional Budget Act of 1974, the provisions of section 402(a) of such Act are waived with respect to the consideration of S. 932. Such waiver is necessary because S. 932 authorizes the enactment of new budget authority which would first become available in fiscal year 1980, and such bill was not reported on or before May 15, 1979, as required by section 402(a) of the Congressional Budget Act of 1974 for such authorizations.

Compliance with section 402(a) of the Congressional Budget Act of 1974, was not possible in this instance because proposals to enhance the national security by reducing the political and economic vulnerability of the United States from dependence on oil imports by increasing the production and conserving the supplies of domestically available renewable and nonrenewable energy supplies through (1) the demonstration of a domestic synthetic fuels production program, (2) the production of gasohol, (3) the establishment of a domestic energy policy plan, (4) the mandating of an energy conservation program, (5) the de-

velopment of domestic geothermal energy, (6) the achievement of commercial solar applications, (7) the performance of wind energy systems commercialization and utilization, and (8) the creation of a solar energy development bank had not been formulated by May 15. This measure represents the details of the national energy program and new energy initiatives for which accommodation was made in the revised concurrent resolution on the budget. Neither the magnitude or the impact of the rises in the cost of imported fuel nor the resulting potential threat to the national security or the immediate and direct threat to the individual health and welfare of the American people could be anticipated and a comprehensive energy program developed prior to May 15.

The effect of defeating consideration of this authorization would be to seriously impede efforts to reduce oil imports and rapidly rising residential and commercial utility bills, further imperil the national security of this Nation, and gravely endanger the health and welfare of individual Americans.

Mr. ROBERT C. BYRD. Mr. President, I move to reconsider, en bloc, the votes by which the resolutions were agreed to.

Mr. MOYNIHAN. I move to lay that motion on the table.

The motion to lay on the table was agreed to.*

DEFENSE PRODUCTION ACT AMENDMENTS OF 1979

The ACTING PRESIDENT pro tempore. Under the previous order, the Chair lays before the Senate a message from the House of Representatives on S. 932.

The ACTING PRESIDENT pro tempore laid before the Senate the following message from the House of Representatives:

Resolved, That the bill from the Senate (S. 932) entitled "An Act to extend the Defense Production Act of 1950, as amended", do pass with the following amendments:

Strike out all after the enacting clause, and insert:

SHORT TITLE

SECTION 1. This Act may be cited as the "Defense Production Act Amendments of 1979".

DECLARATION OF POLICY

SEC. 2. The second sentence of section 2 of the Defense Production Act of 1950 (50 U.S.C. App. 2062) is amended by striking out the period at the end thereof and inserting in lieu thereof "or to respond to actions occurring outside of the United States which could result in the termination or reduction of the availability of strategic and critical materials, including petroleum and which would adversely affect the national defense preparedness of the United States. In order to insure the national defense preparedness which is essential to national security, it is also necessary and appropriate to achieve greater independence in domestic energy supplies".

EXPANSION OF PRODUCTIVE CAPACITY AND SUPPLY

SEC. 3. (a) Section 301(a) of the Defense Production Act of 1950 (50 U.S.C. App. 2091) is amended by striking out "the Department of the Army, the Department of the Navy, the Department of the Air Force, the Department of Commerce," and inserting in lieu thereof "the Department of Defense, the Department of Energy, the Department of Commerce, the Tennessee Valley Authority,".

(b) Section 301(e) (1) of the Defense Production Act of 1950 (50 U.S.C. App. 2092(e) (1)) is amended—

(1) by striking out "Except with the approval of the Congress, the" and inserting in lieu thereof "The"; and

(2) by striking out "\$20,000,000," and inserting in lieu thereof "\$38,000,000, unless the Committee on Armed Services of the Senate and the House of Repre-

*Portion of the Record not pertinent omitted.

representatives have been notified in writing of such proposed obligation and 60 days of continuous session of Congress have expired following the date on which such notice was transmitted to such committees and neither House of Congress has adopted, within such 60-day period, a resolution disapproving such obligation. For purposes of this section, the continuity of a session of Congress is broken only by an adjournment of the Congress sine die, and the days on which either House is not in session because of an adjournment of more than 3 days to a day certain are excluded in the computation of such 60-day period."

(c) Section 302 of the Defense Production Act of 1950 (50 U.S.C. App. 2002) is amended—

(1) in the first sentence, by striking out "and manufacture of newsprint" and inserting in lieu thereof "manufacture of newsprint, and production of energy"; and

(2) in the second sentence, by striking out "\$25,000,000" and inserting in lieu thereof "\$48,000,000".

(d) (1) Section 303(a) of the Defense Production Act of 1950 (50 U.S.C. App. 2003(a)) is amended by striking out "and mining of critical and strategic minerals and metals" and inserting in lieu thereof "mining, and production of critical and strategic minerals, metals, and materials".

(2) Section 408(b) of the Defense Production Act of 1950 (50 U.S.C. App. 2093(b)) is amended by striking out "September 30, 1985" and inserting in lieu thereof "September 30, 2015".

(3) Section 303(g) of the Defense Production Act of 1950 (50 U.S.C. App. 2093(g)) is amended by striking out "and upon a certification" and all that follows through "other national emergency,".

(e) Title III of the Defense Production Act of 1950 (50 U.S.C. App. 2091-2094) is amended by adding at the end thereof the following new section:

Sec. 305. (a) The President, utilizing the provisions of this Act and any other applicable provision of law, shall achieve a national production goal of at least 500,000 barrels per day crude oil equivalent of synthetic fuels and synthetic chemical feedstocks not later than five years after the effective date of this section and at least 2,000,000 barrels per day crude oil equivalent of synthetic fuels and synthetic chemical feedstocks not later than ten years after the effective date of this section. The President is authorized to require fuel and chemical feedstock suppliers to provide synthetic fuels and synthetic chemical feedstocks in any case in which the President deems it practicable and necessary to meet the national defense needs of the United States.

"(b) To assist in carrying out the objectives of this section, the President, subject to subsections (c) and (d), shall—

"(1) contract for purchases of or commitments to purchase synthetic fuels and synthetic chemical feedstocks which may be used as fuels and feedstocks for Government use or resale for use conducive to defense needs or for use in the United States, its possession or territories, or by domestic users; and

"(2) encourage the development and production of such synthetic fuels and synthetic chemical feedstocks for national defense preparedness.

"(c) Purchases, commitments to purchase, and resales under subsection (b) may be made without regard to the limitations of existing law, regarding the procurement of goods or services by the Federal Government, except as provided in section 717(a) of this Act, for such quantities, and on such terms and conditions, including advance payments and for such periods as the President deems necessary, except that—

"(1) no contract for purchases or commitments to purchase may be entered into after September 30, 1995, or the achievement of the production goals authorized in subsection (a), whichever occurs first; and

"(2) purchases or commitments to purchase involving higher than established ceiling prices (or if there are no established ceiling prices, currently prevailing market prices as determined by the Secretary of Energy) or anticipated loss on resale shall not be made unless it is determined that supply of synthetic fuels and synthetic chemical feedstocks could not be effectively increased at lower prices or on terms more favorable to the Government, or that such purchases are necessary to assure the availability to the United States of supplies overseas for national defense purposes.

"(d) (1) Except as provided in paragraph (2), any purchase or commitment to purchase synthetic fuels and synthetic chemical feedstocks under subsection (b) shall be made by sealed competitive bidding.

"(2) In any case in which no such bids are submitted to the President or the President determines that no such bids have been submitted which are acceptable to the President, the President may negotiate contracts for such purchases and commitments to purchase.

"(3) Any contract for such purchases or commitments to purchase shall provide that the President retains the right to refuse delivery of the synthetic fuels and synthetic chemical feedstocks involved and to pay the person involved an amount equal to the amount by which the price for such synthetic fuels and synthetic chemical feedstocks as specified in the contract involved exceeds the market price as determined by the Secretary of Energy, for such synthetic fuels and synthetic chemical feedstocks on the delivery date specified in such contract.

"(4) (A) With respect to any person, including any other person who is substantially controlled by such person (as determined by the Secretary of Energy), the President may not award contracts for the purchase or commitment to purchase more than 100,000 barrels per day equivalent of synthetic fuels and synthetic chemical feedstocks. With respect to any person, including any other person who is substantially controlled by such person (as determined by the Secretary of Energy), the President may not award contracts for the purchase or commitment to purchase of more than 75,000 barrels per day equivalent of synthetic chemical feedstocks unless both Houses of Congress have been notified in writing of such proposed contracts or commitments and 30 days of continuous session of Congress have expired following the date on which such notice was transmitted to the Congress and neither House of Congress has adopted, within such 30-day period, a resolution disapproving such proposed contracts.

"(B) Contracts for the purchase or commitment to purchase synthetic fuels or synthetic chemical feedstocks may be entered into only for synthetic fuels or synthetic chemical feedstocks which are produced in facilities which are located in the United States.

"(C) For purposes of this paragraph, the term 'United States' means the several States, the District of Columbia, the Commonwealth of Puerto Rico, Guam, the Virgin Islands, the Northern Mariana Islands, the Trust Territory of the Pacific Islands, or any other territory or possession of the United States.

"(5) In any case in which the President, under the provisions of this section, accepts delivery of and does not resell any synthetic fuels or synthetic chemical feedstocks, such synthetic fuels or synthetic chemical feedstocks shall be used by the appropriate Federal agency. Such Federal agency shall pay the market price, as determined by the Secretary of Energy, for such synthetic fuels or synthetic chemical feedstocks from sums appropriated to such Federal agency for the purchase of fuels and feedstocks and the President shall pay, from sums appropriated for such purpose under the second sentence of section 711(a), an amount equal to the amount by which the contract price for such synthetic fuels and synthetic chemical feedstocks as specified in the contract involved exceeds such market price.

"(6) In considering any proposed contract under this section, the President shall take into account the socioeconomic impacts on communities which would be affected by any new or expanded facilities required for the production of the fuel or feedstocks under that contract.

"(e) The procurement power granted to the President by this section shall include the power to transport and store and have processed and refined any products procured under this section.

"(f) When in his judgment it will aid the national defense, the President is authorized to install additional equipment, facilities, processes, or improvements to plants, factories, and other industrial facilities owned by the United States Government, and to install Government-owned equipment in plants, factories, and other industrial facilities owned by private persons.

"(g) Each Federal officer and agency having authority to issue any permit for, or to otherwise approve or authorize, the construction or operation of any facility which is to produce any synthetic fuel or synthetic chemical feedstock for which the President has contracted (or entered into a commitment to contract) under this section shall, to the maximum extent practicable—

"(1) expedite all actions necessary for the issuance of such permit, approval, or authorization, and

"(2) take steps designed to result in final action thereon not later than 12 months after the date application for such permit, approval, or authorization is made.

After taking any such action, such officer or agency shall publish notification thereof in the Federal Register.

"(h) (1) Subject to paragraph (2), the President is authorized to organize corporations for purposes of achieving the production goals authorized in subsection (a). Any such corporation shall have the power—

"(A) to produce and acquire synthetic fuels and synthetic chemical feedstocks; and

"(B) for purposes of producing synthetic fuels and synthetic chemical feedstocks—

"(i) to purchase and lease land;

"(ii) to purchase, lease, build, and expand plants;

"(iii) to lease such plants to any person; and

"(iv) to purchase and produce equipment, supplies, and machinery.

"(2) No such corporation may be organized unless both Houses of Congress have been notified in writing of the proposed organization of such corporation and 60 days of continuous session of Congress have expired following the date on which such notice was transmitted to both Houses of Congress and neither House of Congress has adopted, within such 60-day period, a resolution disapproving such organization of such corporation. For purposes of this section, the continuity of a session of Congress is broken only by an adjournment of the Congress sine die, and the days on which either House is not in session because of an adjournment of more than 3 days to a day certain are excluded in the computation of such 60-day period.

"(3) Any corporation organized pursuant to the provisions of this subsection shall be subject to the provisions of the Government Corporation Control Act (31 U.S.C. 841-870) and shall for the purposes of such Act be deemed to be wholly-owned Government corporations as defined in section 101 of such Act (31 U.S.C. 846).

"(i) Notwithstanding any other provision of law, products acquired pursuant to the provisions of this section which, in the judgment of the President, are excess to the needs of programs under this section, shall be transferred to the national stockpile established pursuant to the Strategic and Critical Materials Stock Piling Act (50 U.S.C. 98 et seq.) or to the Strategic Petroleum Reserve, when the President deems such action to be in the public interest.

"(j) For the purposes of this section, the terms 'synthetic fuels' and 'synthetic chemical feedstocks' means fuels and chemical feedstocks produced by the conversion of renewable and nonrenewable resources, including, but not limited to, products produced from coal gasification, coal liquefaction, shale, tar sands, lignite, peat, solid waste, and other mineral gasification, liquefaction or other conversion, and the conversion of any organic material into fuel. Such term includes fuels and chemicals feedstocks produced from tar sands and heavy oils if the hydrocarbon content thereof has a gravity of 15 degrees or less (API). For purposes of applying the preceding sentence, the President may substitute a higher gravity rating (API) for 15 degrees in any case in which he determines that the application of the higher gravity rating would further the purposes of this section.

"(k) Nothing in this Act shall be construed to authorize the President to institute, without the approval of the Congress, a program for the rationing of gasoline among classes of end-users."

GENERAL PROVISIONS

Sec. 4. (a) Section 702(d) of the Defense Production Act of 1950 (50 U.S.C. App. 2152 (d)) is amended by striking out "atomic".

(b) The first sentence of section 708(a) of the Defense Production Act of 1950 (50 U.S.C. App. 2153(a)) is amended by inserting "(except as provided in section 806)" after "other than corporate agencies".

(c) Section 711(a) of the Defense Production Act of 1950 (50 U.S.C. App. 2161(a)) is amended—

(1) by striking out "There" and inserting in lieu thereof "Except as provided in the following sentence, there"; and

(2) by inserting after the first sentence the following new sentence: "There are hereby authorized to be appropriated without fiscal year limitation from general funds of the Treasury not otherwise appropriated or from any fund hereafter established by Congress after the date of enactment of this sentence not to exceed \$3,000,000,000. which shall remain available until expended, to make payments

in accordance with the contract provisions specified in section 305(d) (3) and with the provisions of section 305(d) (5).".

(d) The first sentence of section 717(a) of the Defense Production Act of 1950 (50 U.S.C. App. 2166(a)) is amended by striking out "September 30, 1979" and inserting in lieu thereof "September 30, 1980".

(e) Section 701(d) of the Defense Production Act of 1950 (50 U.S.C. App. 2151(d)) is amended by striking out "Defense Production Act Amendments of 1955" and inserting in lieu thereof "Defense Production Act Amendments of 1979".

SEC. 5. Beginning one year after the effective date of this section, and annually thereafter, the President shall submit a report to the Congress on actions taken under this section.

EFFECTIVE DATE

SEC. 6. The amendments made by this Act shall take effect on October 1, 1979.

Amend the title so as to read: "An Act to amend the Defense Production Act of 1950 to extend the authority granted by such Act and to provide for the purchase of synthetic fuels and synthetic chemical feedstocks, and for other purposes.".

The ACTING PRESIDENT pro tempore. Under the previous order, the amendment in the nature of a substitute reported by the Committee on Energy and Natural Resources as a substitute for the House substitute for the Senate bill, shall be considered as agreed to as original text for the purpose of further amendment, and the amendment in the nature of a substitute reported by the Committee on Banking, Housing, and Urban Affairs for the House substitute for the Senate bill shall be considered as a substitute for the amendment in the nature of a substitute from the Committee on Energy and Natural Resources.

ENERGY SECURITY ACT

The amendment in the nature of a substitute, as reported by the Committee on Energy and Natural Resources, agreed to is as follows:

TITLE I—SYNTHETIC FUELS

SHORT TITLE AND TABLE OF CONTENTS

SHORT TITLE

SEC. 101. (a) This Title may be cited as the "Synthetic Fuels Corporation Act of 1979".

(b) TABLE OF CONTENTS.—

Sec. 101. Short Title; Table of Contents.

SUBTITLE A—FINDINGS AND PURPOSES

Sec. 102. Findings.

Sec. 103. Purposes.

Sec. 104. General Definitions.

SUBTITLE B—ESTABLISHMENT OF CORPORATION

Sec. 111. Incorporation.

Sec. 112. Board of Directors.

Sec. 113. Officers and Employees.

Sec. 114. Conflicts of Interest and Financial Disclosure.

Sec. 115. Delegation.

Sec. 116. Authorization of Administrative Expenses.

SUBTITLE C—PRODUCTION GOALS OF THE CORPORATION

Sec. 121. Overall Production Goals.

Sec. 122. Production Strategy.

Sec. 123. Solicitation of Proposals.

SUBTITLE D—FINANCIAL ASSISTANCE

- Sec. 131. Authorization of Financial Assistance.
- Sec. 132. Loans Made by the Corporation.
- Sec. 133. Loan Guarantees Made by the Corporation.
- Sec. 134. Price Guarantees Made by the Corporation.
- Sec. 135. Purchase Agreements Made by the Corporation.
- Sec. 136. Joint Ventures by the Corporation.
- Sec. 137. Control of Assets.
- Sec. 138. Unlawful Contracts.
- Sec. 139. Fees.
- Sec. 140. Disposition of Securities.

SUBTITLE E—CORPORATION CONSTRUCTION**PROJECTS**

- Sec. 141. Corporation Construction and Contractor Operation.
- Sec. 142. Limitations on Corporation Construction Projects.
- Sec. 143. Environmental, Land Use, and Siting Matters.
- Sec. 144. Public Disclosure.
- Sec. 145. Project Reports.
- Sec. 146. Financial Records.

SUBTITLE F—CAPITALIZATION AND FINANCE

- Sec. 151. Obligations of the Corporation.
- Sec. 152. Limitations on Total Amount of Obligational Authority.
- Sec. 153. Budgetary Treatment.
- Sec. 154. Receipts of the Corporation.
- Sec. 155. Tax Status.

SUBTITLE G—UNLAWFUL ACTS, PENALTIES, AND SUITS AGAINST THE CORPORATION

- Sec. 161. False Statements.
- Sec. 162. Forgery.
- Sec. 163. Misappropriation of Funds and Unauthorized Activities.
- Sec. 164. Conspiracy.
- Sec. 165. Infringement on Name.
- Sec. 166. Additional Penalties.
- Sec. 167. Suits by the Attorney General.
- Sec. 168. Civil Actions Against the Corporation.

SUBTITLE H—GENERAL PROVISIONS

- Sec. 171. General Powers.
- Sec. 172. Coordination With Other Federal Entities.
- Sec. 173. Patents.
- Sec. 174. Small and Disadvantaged Business Utilization.
- Sec. 175. Relationship to Other Laws.
- Sec. 176. Severability.
- Sec. 177. Fiscal Year, Audits and Reports.
- Sec. 178. Water Rights.

SUBTITLE I—DISPOSAL OF ASSETS

- Sec. 181. Tangible Assets.
- Sec. 182. Disposal of Other Assets.

SUBTITLE J—TERMINATION OF CORPORATION

- Sec. 191. Date of Termination.
- Sec. 192. Winding Up the Corporation's Affairs.
- Sec. 193. Transfer of Powers to Department of the Treasury.

SUBTITLE K—DEPARTMENT OF THE TREASURY

- Sec. 195. Authorization.

SUBTITLE A—FINDINGS AND PURPOSES**FINDINGS**

SEC. 102. The Congress finds and declares that:

(a) The achievement of energy security for the United States is essential to the health of the national economy, the well-being of our citizens, and the maintenance of national security;

(b) Dependence on foreign energy resources can be significantly reduced by the production by 1995 of the equivalent of at least 1,500,000 barrels of oil per day of synthetic fuels from domestic resources;

(c) Attainment of synthetic fuels production in the United States in a timely manner and in a manner consistent with the protection of the environment will

require financial commitments beyond those expected to be forthcoming from non-governmental capital sources and existing government incentives; and

(d) Establishment of an independent entity of limited duration which will provide additional financial assistance in conjunction with private sources of capital to assist the development of domestic nonnuclear energy resources for the production of synthetic fuels will facilitate the expeditious achievement of synthetic fuels production from domestic resources.

PURPOSES

SEC. 103. (a) The purposes of this Title are to utilize to the fullest extent the constitutional power of Congress to improve the Nation's balance of payments, reduce the threat of economic disruption from oil supply interruptions and increase the Nation's security by reducing its dependence upon imported oil.

(b) Congress finds and declares that these purposes can be served by—

(1) demonstrating at the earliest feasible time the practicality of synthetic fuels production from the widest variety of technologies and energy resources;

(2) fostering the creation by 1995 of commercial synthetic fuels production facilities of diverse types with the aggregate capability to produce in an environmentally acceptable manner the equivalent of at least 1,500,000 barrels of oil per day of synthetic fuels;

(3) creating the Synthetic Fuels Corporation, a self-liquidating corporate entity of limited duration formed to provide financial assistance to undertake synthetic fuel projects;

(4) providing for financial assistance to encourage and assure the flow of capital funds to those sectors of the national economy which are important to the domestic production of synthetic fuels;

(5) encouraging private capital investment and activities in the development of domestic sources of synthetic fuels and to foster competition in the development of the Nation's synthetic fuel resources;

(6) encouraging and supplementing and not competing or supplanting private capital investments in the development of domestic sources of synthetic fuels; and

(7) fostering greater energy security and reducing the Nation's economic vulnerability to disruptions in imported energy supplies.

GENERAL DEFINITIONS

SEC. 104. As used in this title the term—

(1) "concern" shall mean any—

(A) person, or

(B) State or any political subdivision or governmental entity thereof, Indian tribe or tribal organization, or

(C) foreign government or agency thereof when participating in joint ventures with (A) or (B), or

(D) combination of the aforementioned, which is engaged, or proposes to engage, in a synthetic fuel project or projects pursuant to this title;

(2) "financial assistance" shall mean any of the following forms of financial assistance, or combinations thereof, but excluding grants, as provided in subtitle D—

(A) loans;

(B) guarantees of, or commitments to guarantee, indebtedness, including principal and interest (hereinafter referred to as "loan guarantees");

(C) guarantees of, or commitments to guarantee, the price received or to be received by a concern from the sale of synthetic fuel (hereinafter referred to as "price guarantee");

(D) contracts to purchase synthetic fuel, guarantees thereof, or commitments therefor (hereinafter referred to as "purchase agreements");

(E) contracts with a concern pursuant to section 136 to jointly construct a synthetic fuel project module (hereinafter referred to as a "joint-venture"); and

(F) acquisition and lease back of a synthetic fuel project pursuant to section 137(c);

(3) "Indian tribe" means any Indian tribe, band, nation, or other organized group or community, including any Alaska Native village or regional or village corporation as defined in or established pursuant to the Alaska Native Claims Settlement Act which is recognized as eligible for the special programs and

as provided by the United States to Indians because of their status as Indians;

"person" means any individual, company, cooperative, partnership, corporation, association, consortium, unincorporated organization, trust estate, or entity organized for a common business purpose;

"State" means any of the fifty States, the District of Columbia, Puerto Rico, the Virgin Islands, Guam, American Samoa, and the Commonwealth of the Northern Mariana Islands;

"synthetic fuel" shall mean any liquid, gaseous or solid hydrocarbon (including mixtures of coal and petroleum) which can be used as a substitute for fuels of petroleum or natural gas (and for any derivatives thereof) derived from domestic sources of:

(1) coal, including lignite and peat;

(2) shale;

(3) tar sands, including those heavy oil resources which cannot technically or economically be produced using conventional or unconventional petroleum recovery techniques; and

(4) biomass, which shall include timber, animal and timber waste, municipal industrial waste, sewage, sludge, oceanic and terrestrial plants, and other organic matter;

"synthetic fuel project" shall mean any facility located in the United States for the purpose of commercial production of synthetic fuel, including any facility related transportation or other facilities and including the equipment, machinery, supplies, and other materials associated with the facility. It may include the land, mineral rights, services and working capital required for use in connection with the facilities for the production of synthetic fuel.

In the case of a facility for the commercial production of synthetic fuel derived from biomass, such term shall include a facility for the production of oil or other synthetic fuels derived from timber, animal and timber waste, municipal and industrial waste, sewage, sludge, oceanic and terrestrial plants, other organic matter: *Provided*, That such term shall include any facility located in the United States and used solely for the purpose of commercial production of mixtures of coal and petroleum for direct use as a fuel: *Provided* also, That such term shall include for the sole purpose of financial assistance pursuant to subtitle D any commercial magnetohydrodynamics facility located in the United States.

SUBTITLE B—ESTABLISHMENT OF CORPORATION INCORPORATION

111. (a) There is hereby created a body corporate, to be known as the Synthetic Fuels Corporation (hereinafter referred to as the "Corporation").

The principal office of the Corporation shall be located in the District of Columbia. The Corporation may establish offices elsewhere in the United States determined by the Board of Directors of the Corporation.

BOARD OF DIRECTORS

112. (a) (1) The power of the Corporation shall be vested in the Board of Directors, except those functions, powers, and duties vested in the Chairman of the Board by this Title.

The Board of Directors shall consist of (A) a Chairman and four other persons appointed by the President by and with the advice and consent of the Senate, in a voting capacity; and (B) the Chairman of the Energy Mobilization Board, the Secretary of the Treasury, and the Secretary of Energy, in a non-voting and ex-officio capacity. Of the five voting members of such Board, not more than three shall be members of any one political party. The Chairman shall devote his full working time to the affairs of the Corporation and shall hold no other salaried position.

The Chairman and other voting Directors shall serve for five-year terms. The first five Directors first appointed, the Chairman shall serve as Chairman for a term of five years, one Director shall serve for a term of four years, one shall serve for a term of three years, one shall serve for a term of two years, and one shall serve for a term of one year. Upon expiration of the initial term of each Director, Directors appointed thereafter shall serve for a term of five years. Whenever a vacancy shall occur on the Board of Directors, the President shall, with the advice and consent of the Senate, appoint a person to fill such

vacancy for the remainder of the applicable term. Upon the expiration of a term, a Director shall continue to serve at the pleasure of the President until his or her successor shall have been appointed and shall have qualified. Any Director may be removed from office by the President for neglect of duty, or malfeasance in office.

(c) Each Director, other than the Chairman, may serve in a full-time or part-time capacity. Directors who are serving in a part-time capacity, other than ex-officio members, may not hold other Federal positions. Directors who are serving full-time shall hold no other salaried position. Directors shall be reimbursed for reasonable expenses which are incurred in connection with their services as Directors of the Corporation.

(d) Before assuming office, each Director shall take an oath faithfully to discharge the duties thereof. All Directors shall be citizens of the United States.

(e) The Board of Directors shall meet at any time pursuant to the call of the Chairman and as may be provided by the bylaws of the Corporation, but not less than quarterly. A majority of the Directors serving in a voting capacity shall constitute a quorum, and any action by the Board shall be effected by majority vote of all members of the Board serving in a voting capacity. The Board of Directors shall adopt, and from time to time amend, such bylaws as are necessary for the proper management and functioning of the Corporation.

(f) All meetings of the Board of Directors of the Corporation held to conduct official business of the Corporation shall be open to public observation, and shall be preceded by reasonable public notice. The Board may close, pursuant to such bylaws as it may establish, a meeting to consider matters of information which, if disclosed, would (1) invade personal privacy, (2) disclose confidential financial, commercial, or proprietary information (including trade secrets), (3) disclose privileged information, (4) disclose information which is likely to adversely affect financial or securities markets or institutions, or (5) otherwise frustrate the activities of the Corporation. The determination to close any meeting of the Board for the foregoing purposes shall be made in a meeting of the Board open to public observation preceded by reasonable notice. In the event that the Board shall close any meeting to the public, it shall prepare minutes of such a meeting. Such minutes shall be made public except for those portions of such minutes the disclosure of which, in the judgment of the Board, is inconsistent with the foregoing.

(g) The compensation of the voting members of the Board of Directors shall be fixed initially by the President and may be adjusted from time to time upon recommendation by the Board and concurrence of the President.

OFFICERS AND EMPLOYEES

SEC. 113. (a) The Chairman of the Board shall be the chief executive officer of the Corporation, and shall be responsible for the management and direction of the Corporation.

(b) The Board of Directors shall—

(1) establish the offices and appoint the officers of the Corporation (including, but not limited to, a General Counsel and Treasurer), define their duties and fix their compensation;

(2) adopt a schedule for compensation of officers which shall be comparable to the Executive Schedule prescribed by subchapter II of chapter 53 of title 5, United States Code, and a schedule for compensation of corporate employees which shall be comparable to the General Schedule prescribed by subchapter III of chapter 53 of Title 5, United States Code: *Provided*, That in the event that the Board of Directors finds that an officer or a category or categories of employees should be compensated at a level in excess of such schedules, the Board shall recommend to the President the proposed compensation level and may compensate the officer or employee at such level if the President does not disapprove such recommendation within a period of sixty days; and

(3) provide a system of organization to fix responsibility and promote efficiency.

(c) Except as specifically provided herein, directors, officers, and employees of the Corporation shall not be subject to the laws of the United States relating to governmental employment.

(d) The Chairman shall appoint such employees as may be necessary for the transaction of the Corporation's business to, and discharge such employees from,

positions established in accordance with the schedule adopted pursuant to subsection (b) (2).

(e) No political tests or qualification shall be used in selecting, appointing, promoting, or taking other personnel actions with respect to officers, agents, and employees of the Corporation, except as provided in section 112(a) (2).

CONFLICTS OF INTEREST AND FINANCIAL DISCLOSURE

Sec. 114. (a) The financial disclosure provisions of the Ethics in Government Act of 1978 (Public Law 95-521) applicable to persons occupying positions compensated under the Executive Schedule shall apply to all Directors serving in a voting capacity and to officers of the Corporation and to employees of the Corporation whose position in the schedule established by the Board pursuant to section 113(b) (2) of this Title is equivalent in duties and responsibilities to that classified at GS-16 or above.

(b) The provisions of law governing post-Federal employment activities shall not apply to former Federal employees who may be employed by the Corporation when acting on behalf of the Corporation.

(c) (1) Except as permitted by paragraph (3) hereof, no Director of the Corporation shall vote on any matter respecting any application, contract, claim, or other particular matter pending before the Corporation, in which, to his or her knowledge, he or she, his or her spouse, minor child, partner, an organization (other than the Corporation) in which he or she is serving as an officer, director, trustee, partner, or employee, or any person or organization with whom he or she is negotiating or has any arrangement concerning prospective employment has a financial interest.

(2) Action by a Director contrary to the prohibition contained in paragraph (1) hereof shall be cause for removal of such Director, but shall not impair or otherwise effect the validity of any otherwise lawful action by the Corporation in which the Director or officer participated.

(3) The prohibition contained in paragraph (1) hereof shall not apply if the Director first advises the Board of Directors of the nature of the particular matter in which he or she proposes to participate and makes full disclosure of the financial interest he or she holds, and the Board determines by majority vote that the financial interest is too remote or too inconsequential to affect the integrity of the Director's services for the Corporation in that matter. The Director involved shall not participate in this determination.

(d) For purposes of subsection (a) of section 207 of title 18, United States Code, and of subsections (f), (h), and (j) of such section to the extent they relate to subsection (a), former Directors, officers, and employees of the Corporation shall be deemed to be former officers or employees of the executive branch of the United States Government, and, as to such employees, the Corporation shall be deemed to be an agency of the executive branch of the United States Government.

DELEGATION

Sec. 115. The Board of Directors may, by resolution, delegate to the Chairman of the Board functions, powers, and duties assigned to the Corporation under this Title other than those expressly vested in the Board of Directors pursuant to sections 112(f), 113(b), 114(c) (3), 122(a) (1) (D), 122(b), 123 (c), (e), and (f), 131 (a), (b), and (f), 132 (a) and (d), 133 (a) and (b), 134, 135(a), 136 (a) and (b), 137 (b) and (c), 141(a), 154, 171 (a) (8) and (c), 173 (a) and (b), 181 (a) and (c), and 191(b). The Chairman of the Board may, by written instrument, delegate such functions, powers, and duties as are assigned to the Chairman by or pursuant to the provisions of this title to such other full-time Directors, officers or employees of the Corporation as the Chairman deems appropriate.

AUTHORIZATION OF ADMINISTRATIVE EXPENSES

Sec. 116. (a) The Corporation is authorized to make cash outlays not to exceed \$35,000,000 during any fiscal year for its reasonable and necessary administrative expenses. For purposes hereof, administrative expenses shall be that portion of the Corporation's account for general and administrative expenses which includes salaries of personnel and consultants, expenses for computer usage, for space needs of the Corporation and similar expenses: *Provided*, That for each fiscal year commencing after September 30, 1980, the \$35,000,000 limita-

tion shall be increased as of October 1 each year by an amount equal to the percentage increase in the Gross National Product implicit price deflator, as published by the Department of Commerce or successor, for the year then ended over the level so established for the year ending September 30, 1979.

(b) Funds authorized for administrative expenses shall not be available for the acquisition of real property or for expenses related to corporation construction projects pursuant to subtitle E.

(c) The Corporation may make expenditures, without further appropriation for reasonable and necessary administrative expenses not to exceed the limit provided in subsection (a) in any fiscal year and then only in accordance with a detailed statement of such expenditures which has been transmitted to the Congress, the Senate Committee on Energy and Natural Resources and the appropriate committees of the House of Representatives pursuant to section 153 along with the President's budget for such fiscal year: *Provided*, That such expenditures for fiscal year 1980 may be made without such prior statement. It is the intention of this section that the Corporation's expenditures for administrative expenses shall reflect due consideration for economy and to the extent practicable shall be consistent with standards applicable to Federal agencies generally.

SUBTITLE C—PRODUCTION GOALS OF THE CORPORATION

OVERALL PRODUCTION GOALS

Sec. 121. There is hereby established a national goal of achieving by 1985 a synthetic fuels production capability of at least 1,500,000 barrels per day of crude oil equivalent from domestic energy resources.

PRODUCTION STRATEGY

Sec. 122. (a) (1) In order to assure achievement of the national goal set forth in section 121 and the purposes of this Title, the Corporation shall—

(A) pursuant to section 123(a), solicit proposals for synthetic fuel projects; (B) pursuant to section 131(a), provide financial assistance to those proposals acceptable to the Board of Directors;

(C) after providing financial assistance pursuant to clauses (A) and (B), if in the judgment of the Board of Directors, there are, or will be, insufficient acceptable proposals as necessary to achieve the purpose of this Title, the Corporation shall undertake to negotiate contracts pursuant to subtitle D as necessary to achieve the purposes of this Title; and

(D) only after fulfilling the requirements of clauses (A), (B), and (C), if in the judgment of the Board of Directors, there still are, or will be, insufficient acceptable proposals as necessary to achieve the purposes of this Title, the Corporation may, consistent with the objectives set forth in paragraph (2) hereof and subject to the limitations of subtitle E, undertake Corporation construction projects pursuant to subtitle E as necessary to achieve the purposes of this Title.

(2) Prior to the approval of a comprehensive strategy pursuant to subsections (b) and (c), the Corporation in discharging its responsibilities under paragraph (1) shall employ financial assistance pursuant to subtitle D or Corporation construction projects pursuant to subtitle E in such manner as will, in the judgment of the Board, (A) best demonstrate a diversity of technologies (including differing processes, methods and techniques) for each domestic resource that offers significant potential for use as a synthetic fuel feedstock as well as (B) offer the potential for achieving the national synthetic fuels production goal set forth in section 121. For the purposes of this paragraph the term "domestic resource" shall be construed so as to require the consideration of different types and qualities of coal (such as high- and low-sulphur coal, or Eastern and Western coal), shale, tar sands, and biomass, as different domestic resources.

(3) Prior to the approval of a comprehensive strategy pursuant to subsections (b) and (c), the Corporation, in a case of synthetic fuel projects for the commercial production of synthetic fuel derived from biomass, shall award financial assistance pursuant to subtitle D only to those synthetic fuel projects which are of a size and type that offer a significant potential to contribute to the national synthetic fuels production goal set forth in section 121: *Provided*, That such financial assistance for synthetic fuel projects using biomass resources in the aggregate shall not exceed \$1,000,000,000.

(b) The Corporation shall, consistent with the purposes of this Title, establish a comprehensive strategy to achieve the national synthetic fuel production goal

set forth in section 121. In the formulation of such strategy, the Corporation shall consider all practicable means for the commercial production of synthetic fuels from domestic resources, employing the widest diversity of feasible technologies. Such strategy shall, to the extent feasible, set forth the recommendations of the Board of Directors on the Corporation's objectives and schedules for their achievement. Such strategy, unless disapproved pursuant to subsection (c), shall become the strategy of the Corporation for the achievement of the national synthetic fuels production goal set forth in section 121.

(c) (1) Not later than three years after the effective date of this Title, the Corporation shall submit its proposed comprehensive strategy to the Congress. Such strategy shall be deemed approved after sixty calendar days of continuous session of the Congress have expired following the date of such submission unless either House of the Congress has, during such sixty-day period, adopted a resolution disapproving such proposed strategy. In the event that a plan is disapproved by either House of Congress, the Board of Directors shall modify the strategy and resubmit the modified strategy to the Congress within ninety calendar days for approval as provided by this subsection.

(2) The Board of Directors may, consistent with the purposes of this Title, amend the approved strategy if, in their judgment, such amendment is necessary to achieve the national synthetic fuels production goal set forth in section 121. Any such amendment and its justification shall be included in the subsequent quarterly report to the Congress pursuant to section 177 (c).

SOLICITATION OF PROPOSALS

SEC. 123. (a) The Corporation is hereby directed to solicit proposals from time to time from concerns interested in the construction or operation, or both, of synthetic fuel projects.

(b) All solicitations of proposals for financial assistance shall be conducted in a manner so as to encourage maximum open and free competition.

(c) Each solicitation for proposals pursuant to the authority of this section shall set forth general criteria, as determined by the Board of Directors, taking into account achievement of the national synthetic fuels production goal and the requirements of section 122 (a), for a general type of synthetic fuel project taking into account:

- (1) the type of domestic resource used by the project;
- (2) the type or types of technologies to be employed; and
- (3) the types and amounts of synthetic fuels to be produced.

(d) Thirty days after enactment of this Title, the Secretary of Energy on behalf of the Corporation and pursuant to the authorities granted in this Title, may make a solicitation for commercial scale high-Btu coal gas plants which shall be reviewed and acted upon by the Corporation pursuant to this Title.

(e) The Corporation shall give priority consideration to applications for financial assistance from those concerns proposing a synthetic fuel project in those States which, in the judgment of the Board of Directors, indicate an intention to expedite all regulatory, licensing, and related government agency activities related to such project.

(f) Any concern may request the Board of Directors to issue a solicitation pursuant to this section for proposals for a general type of synthetic fuel project and the Board of Directors, if it deems the action to be in accordance with the objectives and provisions of this Title, may issue such a solicitation.

(g) (1) Within six months after the date of enactment of this Title, the Corporation shall make an initial set of solicitations directed by subsection (a) by publication in the Federal Register and by such other notice as is customarily used to solicit proposals for Federal assistance for major research and development undertakings.

(2) Such set of solicitations shall encompass a diversity of technologies (including differing processes, methods, and techniques) for each potential domestic resource as well as all of the forms of financial assistance authorized in subtitle D.

SUBTITLE D—FINANCIAL ASSISTANCE

AUTHORIZATION OF FINANCIAL ASSISTANCE

SEC. 131. (a) Financial assistance shall be awarded to the qualified concern whose proposal is most responsive to the solicitation for proposals and is most likely to advance the purposes of this Title, including consideration of price and other factors. Whenever, in the judgment of the Board of Directors, it is

practicable and provident to do so the Corporation shall award financial assistance on the basis of competitive bids.

(b) (1) Subject to the limitations set forth in this Title, the Corporation is authorized upon such terms and conditions as the Board of Directors shall determine—

(A) to provide financial assistance to a qualified concern whose proposal is responsive to a solicitation for proposals issued under the authority of section 123;

(B) with the consent of the recipient, to renew, modify, or extend such financial assistance; and

(C) in connection with the provision of financial assistance, to require such security and collateral as the Corporation deems appropriate for the repayment of any fixed or contingent obligations to the Corporation.

(2) The proposal selected for financial assistance pursuant to any solicitation shall be that proposal which, in the judgment of the Board, is most advantageous in meeting the national synthetic fuel production goals as determined by the Board of Directors. Preference in such selection shall be given to—

(A) the proposal which represents the least Federal financial commitment and the lowest unit production cost within a given technological process, taking into account the amount and value of the anticipated synthetic fuel products; and

(B) in determining relative Federal commitment, in decreasing order of priority, preference shall be given to—

- (i) price guarantees or purchase agreements,
- (ii) loan guarantees,
- (iii) loans, and
- (iv) joint-ventures.

(3) If after a formal solicitation for competitive bids no bids are received during the period for response or those received are not acceptable to the Board of Directors and the Board makes a finding (A) that the synthetic fuel project is essential for the achievement of the national synthetic fuel production goal and the requirements of section 122(a) and (B) that competitive bids are not appropriate, the Board shall report such findings to the Committee on Energy and Natural Resources of the Senate and the appropriate committees of the House of Representatives and may then proceed to negotiate a contract of financial assistance for such project with a qualified concern.

(4) For the purposes of this section the term "qualified concern" means a concern which shall demonstrate to the satisfaction of the Board evidence of its capability to undertake and complete the design, construction, and operation of the proposed synthetic fuel project.

(c) All contracts and instruments of the Corporation to provide, or providing, for financial assistance shall be general obligations of the United States backed by its full faith and credit.

(d) Subject to the conditions of any contract for financial assistance, such control shall be incontestable in the hands of the holder, except as to fraud or material misrepresentation on the part of the holder.

(e) Any contract for financial assistance shall require the development of a plan, acceptable to the Board of Directors, for the monitoring of environmental and health related emissions from the construction and operation of the synthetic fuel project. Such plan shall be developed by the recipient of financial assistance after consultation with the Administrator of the Environmental Protection Agency and the Secretary of Energy.

(f) The Corporation may, in its sole discretion and upon request of the recipient of financial assistance, reimburse such recipient for any reasonable costs in connection with a synthetic fuel project if construction of such project cannot occur within five years of the award of such financial assistance due to any Government regulatory action, or lack of action which, in the judgment of the Board of Directors, could not have been reasonably foreseen by the recipient, and such reimbursement, in the judgment of the Board, is consistent with the purposes of this Title.

(g) No financial assistance may be provided unless an application therefor has been submitted to the Corporation in such manner and containing such information as the Corporation may require.

(h) The Corporation in providing financial assistance shall give due consideration to promoting competition.

(i) Every applicant for financial assistance under this Act shall, as a condition precedent thereto, consent to such examinations and reports thereon as the

Corporation or its designee may require for the purposes of this title. The Corporation shall require such reports and records as it deems necessary from any recipient of financial assistance in connection with activities carried out pursuant to this title. The Corporation is authorized to prescribe the manner of keeping records by any recipient of financial assistance and the Corporation or its designee shall have access to such records at all reasonable times for the purpose of insuring compliance with the terms and conditions upon which financial assistance was provided.

(j) In no case shall the aggregate amount of financial assistance made or committed under this title to any one concern, either directly or indirectly, exceed at any one time 15 per centum of the obligation authority of the Corporation authorized under section 151.

(k) Each price guarantee under section 134 or a purchase agreement under section 135 shall specify in dollars the maximum amount of the liability of the Corporation thereunder.

(l) With regard to a synthetic fuel projects proposed by a concern whose rates are regulated, the Corporation is authorized to consider as a factor in any decision to award financial assistance whether the regulatory body, or bodies, are likely to issue a ratemaking decision which will protect the financial interests of the investors and the Corporation.

(m) In the case of a synthetic fuel project for the commercial production of synthetic fuel derived from biomass, financial assistance shall only be available for such portion of such project which is associated directly with the production of synthetic fuels: *Provided*, That financial assistance shall not be available for such a project if it will produce synthetic fuel derived from waste paper which has historically been recycled for non-energy uses.

(n) The Corporation, as a condition to providing financial assistance, other than loans pursuant to section 132 and loan guarantees pursuant to section 133, may require that the Corporation share in profits from the operation of a synthetic fuel project on a fair basis.

(o) Whenever the Corporation, by one or more actions, awards a combination of two or more forms of financial assistance for a single synthetic fuel project, the Corporation shall insure that the recipient of such financial assistance shall bear a reasonable degree of risk in the construction and operation of such project.

LOANS MADE BY THE CORPORATION

SEC. 132. (a) The Corporation is authorized, on such terms and conditions, as the Board of Directors may prescribe, to commit to, or enter into loans to any concern for a synthetic fuel project: *Provided*, That such loans shall not exceed 75 per centum of the total costs of the synthetic fuel project, as estimated by the Corporation as of the date of the loan or commitment to loan. In the event the total costs of the project are thereafter estimated to exceed the total costs initially estimated by the Corporation, the Corporation may in addition, upon application therefor, loan up to 60 per centum of the difference between the then estimated total costs and the total costs initially estimated.

(b) Each loan made under this subtitle shall bear interest at such rate as the Corporation may determine, giving consideration to the needs and capacities of the recipient and the prevailing rates of interest (public and private); *Provided*, That such rate shall not be less than a rate determined by the Secretary of the Treasury, for the Corporation, taking into consideration the current average yield on outstanding marketable obligations of the United States with remaining periods of maturity comparable to the average maturities of such loans. No loan shall be made unless the Corporation shall have determined that there is a reasonable prospect of repayment or that such synthetic fuel project will have a substantial demonstration value.

(c) Loans may be made either directly or in cooperation or participation with banks or other lending institutions. Loans may be made directly upon promissory notes or other evidence of indebtedness or by way of discount or rediscount of obligations tendered for the purpose.

(d) If the Board of Directors determines that—

(1) the borrower is unable to meet payments and is not in default; it is in the public interest to permit the borrower to continue to pursue the purposes of each project; and the probable net benefit to the Corporation in forbearing from exercising its rights under a loan agreement will be greater than that which would result in the event of a default;

(2) the amount of any payment which the Corporation would be required to pay shall be no greater than the amount of principal and interest which the borrower is obligated to pay at that time; and

(3) the borrower agrees to reimburse the Corporation for such payment on terms and condition, including interest, which are satisfactory to the Corporation; then the Corporation may forebear from exercising its rights under the loan agreement.

(e) The terms and conditions of loans shall provide that, if the Corporation makes a payment of principal or interest upon the default by a borrower, the Corporation shall be subrogated to the rights of the recipient of such payment (and such subrogation shall be expressly set forth in the loan or related agreement).

LOAN GUARANTEES MADE BY THE CORPORATION

SEC. 133. (a) (1) The Corporation is authorized, on such terms and conditions as the Board of Directors may prescribe, to commit to, or enter into loan guarantees against loss of principal and interest on bonds, notes, or other obligations (including refinancing thereof) issued solely to provide funds to any concern for a synthetic fuel project: *Provided*, That such guarantee shall not exceed 75 per centum of the total costs of the synthetic fuel project, as estimated by the Corporation as of the date of the guarantee or commitment to guarantee. In the event the total costs of the project are thereafter estimated to exceed the total costs initially estimated, by the Corporation, the Corporation may in addition, upon application therefor, guarantee up to 60 per centum of the difference between the then estimated total costs and the total costs initially estimated.

(2) Any guarantee made by the Corporation under this section shall not be terminated, canceled, or otherwise revoked, except in accordance with the terms thereof; and shall be conclusive evidence that such guarantee complies fully with the provisions of this Title and of the approval and legality of the principal amount, interest rate, and all other terms of the securities, obligations, or loans and of the guarantee.

(b) If the Board of Directors determines that—

(1) the borrower is unable to meet payments and is not in default; it is in the public interest to permit the borrower to continue to pursue the purposes of such project; and the probable net benefit to the Corporation in paying the principal and interest under a loan guarantee agreement will be greater than that which would result in the event of a default;

(2) the amount of any payment which the Corporation would be required to pay shall be no greater than the amount of principal and interest which the borrower is obligated to pay at that time; and

(3) the borrower agrees to reimburse the Corporation for such payment on terms and conditions, including interest, which are satisfactory to the Corporation, then the Corporation is authorized to pay the lender under a loan guarantee agreement, an amount not greater than the principal and interest which the borrower is obligated to pay.

(c) The terms and conditions of loan guarantees shall provide that, if the Corporation makes a payment of principal or interest upon the defaults by a borrower, the Corporation shall be subrogated to the rights of the recipient of such payment (and such subrogation shall be expressly set forth in the loan guarantee or related agreements.)

PRICE GUARANTEES MADE BY THE CORPORATION

SEC. 134. The Corporation is authorized, on such terms and conditions as the Board of Directors may prescribe to commit to, or enter into price guarantees providing that the price that a concern will receive for all or part of the production from a synthetic fuel project shall not be less than a specified sales price determined as of the date of execution of the commitment or the price guarantee: *Provided*, That no such price guarantee may be based upon a "cost plus" arrangement or variant thereof which guarantees a profit to the concern, except that the use of a "cost of service" pricing mechanism by a concern pursuant to law, or by a regulatory body establishing rates for a regulated concern, shall not be deemed to be a cost plus arrangement or variant thereof: *Provided further*, That if the Corporation determines in its sole discretion that such project would not otherwise be satisfactorily completed or continued and

that completion or continuation of such project would be necessary to achieve the purpose of this title, the sales price set forth in the price guarantee may be renegotiated.

PURCHASE AGREEMENTS MADE BY THE CORPORATION

SEC. 135. (a) The Corporation is authorized, on such terms and conditions as the Board of Directors may prescribe, to commit to, or enter into purchase agreements for all or part of the production from a synthetic fuel project. The sales price specified in a purchase agreement shall not exceed the estimated prevailing market price as of the date of delivery, as determined by the Secretary of Energy, unless the Corporation determines that such sales price much exceed such estimated prevailing market price in order to insure the production of synthetic fuel to achieve the purposes of this Title.

(b) The Corporation in entering into, or committing to enter into a purchase agreement shall require—

(1) assurance that the quality of the synthetic fuels purchased meet standards for the use for which such fuels are purchased;

(2) assurances that the ordered quantities of such fuels are delivered on a timely basis; and

(3) such other assurances as may reasonably be required.

(c) Each purchase agreement, or commitment to enter into a purchase agreement, shall provide that the Corporation retains the right to refuse delivery of the synthetic fuels involved upon such terms and conditions as shall be specified in the purchase agreement.

(d) The Corporation is authorized to take delivery of synthetic fuels pursuant to a purchase agreement and to sell such synthetic fuels to a person. In any case in which the Corporation accepts delivery of and does not sell such synthetic fuels to a person, such synthetic fuels shall be purchased by the Federal Government for use by an appropriate Federal agency. Such Federal agency shall pay the prevailing market price, as determined by the Secretary of Energy, for such synthetic fuels from sums appropriated to such Federal agency for the purchase of fuels.

(e) The Corporation is authorized to transport and store and have processed and refined any synthetic fuels obtained pursuant to a purchase agreement under this section.

JOINT VENTURES BY THE CORPORATION

SEC. 136. (a) Prior to the approval of a comprehensive strategy pursuant to section 122 (b) and (c), the Corporation is authorized, on such terms and conditions as the Board of Directors may prescribe, to commit to, or to enter into joint ventures for synthetic fuel project modules. In a joint venture the Corporation may undertake the construction and operation of a synthetic fuel project module only by contract: *Provided, however,* That the Corporation shall not finance more than 75 per centum of the total costs of the synthetic fuel project module, as estimated by the Corporation as of the date of execution of the joint venture.

(b) Joint ventures shall be restricted to synthetic fuel project modules which, in the judgment of the Board of Directors, will—

(1) demonstrate the commercial feasibility of a technology for the production of synthetic fuels from a significant domestic resource which offers potential for achievement of the national synthetic fuel production goal; and

(2) can, at the same site, be expanded into a synthetic fuel project.

(c) With regard to any joint venture, the initial contract may provide for purchase pursuant to such joint venture agreement of the equity interest of the Corporation in such joint venture by the participating concern, or concerns, after an appropriate interval, not to exceed five years after the date of operation of a synthetic fuel project module. The purchase price set forth in the joint venture agreement shall be established by the Board of Directors: *Provided,* That if such purchase from the Corporation is not provided for in the initial joint venture agreement or is not exercised by such concern, or concerns, the Corporation, after an appropriate interval, not to exceed five years after the date of operation of a synthetic fuel project module pursuant to a joint venture agreement shall dispose of its participation in such agreement pursuant to section 181 of this Title.

(d) For the purposes of this section, the term—

(1) "synthetic fuel project module" means any facility located in the United States which (A) is of a size smaller than a synthetic fuel project, (B) will, if successful, demonstrate the technical and economic feasibility of the commercial production of synthetic fuels, and (C) can eventually be expanded at the same site into a synthetic fuel project; and

(2) "joint venture" means an agreement under which the Corporation and one, or more, concerns participate in (A) the ownership and (B) the management, construction or operation, of a synthetic fuel project module:

Provided, That the ownership of the Corporation in such joint venture shall be in proportion to the relative contribution of the Corporation to the joint venture.

CONTROL OF ASSETS

SEC. 137. (a) The Corporation may acquire or retain control of a synthetic fuel project only—

(1) by foreclosure of a security interest or pursuant to a default under any financial assistance contract;

(2) pursuant to section 136, and 137 (b) and (c); or

(3) pursuant to subtitle E.

(b) The Corporation may acquire control of a synthetic fuel project which is the subject of financial assistance under this Title prior to the approval of the comprehensive strategy pursuant to sections 122 (b) and (c) under the following circumstances:

(1) substantial progress has been made toward completion of the construction and operation of such project and the Board of Directors determines that such project will not commence operation, or will cease operation unless acquired by the Corporation;

(2) the operation of such project will make a significant contribution toward achieving the objectives of this Title;

(3) such acquisition of control will not result in losses to the Corporation disproportionate to the benefits that operation of the project will produce in demonstrating a particular technology;

(4) failure of the Corporation to acquire such project would result in a greater financial liability by the Corporation than acquisition of the project by the Corporation; and

(5) with respect to projects subject to loans or loan guarantees, the concern anticipates going into default, or is in default:

Provided, That the Corporation may not acquire any such control until it has submitted a plan, approved by the President, for such acquisition to the Congress and neither House of Congress has passed a resolution disapproving such plan within thirty days of continuous session following the date such plan was submitted: *Provided, further*, That any completion of the construction or operation of any such project the control of which was acquired pursuant to this subsection may only be undertaken by contract.

(c) With respect to synthetic fuel projects subject to loans and loan guarantees where the Corporation acquires control pursuant to subsection (b), the Corporation, on such terms and conditions as the Board of Directors may prescribe, is authorized to lease back to the concern involved such synthetic fuel project where such lease will assure the production of synthetic fuel from such project consistent with the purposes of this Title: *Provided*, That the Corporation may not lease back such a project until it has submitted a plan approved by the President for such lease-back to the Congress and neither House of Congress has passed a resolution disapproving such plan within thirty days of continuous session following the date such plan was submitted.

(d) For the purposes of this section, the term—

(1) "operating asset" shall mean any real or personal property used in the synthetic fuel project; and

(2) "control" shall mean the power to direct the use or disposition of operating assets of the synthetic fuel project through (A) direct ownership; or (B) ownership of the majority of the voting securities of a corporation or other concern which (i) owns or (ii) leases a synthetic fuel project; *Provided*, That "control" shall not be deemed to result from the ownership of operating assets of a synthetic fuel project which are leased to and in the possession of parties independent of the Corporation.

UNLAWFUL CONTRACTS

SEC. 138. For the purposes of sections 431 through 438, inclusive, of title 18, United States Code, the Corporation shall be deemed to be an agency of the United States and such sections shall apply to all contracts, instruments, or agreements of the Corporation. Such contracts, instruments, or agreements include, but are not limited to, financial assistance, advances, discounts and rediscounts, acceptances, releases, and substitution of security, together with extensions or renewals thereof.

FEES

SEC. 139. (a) The Corporation may charge and collect fees in connection with the financial assistance provided pursuant to this Title: *Provided*, That such fees shall not exceed 1 per centum of the amount of such financial assistance. Fees received by the Corporation may be applied against the administrative expenses of the Corporation related to providing financial assistance and probable losses.

(b) The Corporation shall prescribe and collect an annual fee in connection with each loan guarantee provided pursuant to this Title of one-half of 1 per centum of the amount of such loan guarantee. Sums realized from such fees shall be deposited in the synthetic fuel account and shall be used solely to meet obligations arising from default by a recipient of financial assistance under this Title.

DISPOSITION OF SECURITIES

SEC. 140. The Corporation may sell in public or private transactions all or any part of the notes, bonds, or any other evidences of indebtedness of any other person ownership of which is acquired by the Corporation pursuant to this Title. Upon any sale by the Corporation under this section, upon the repayment to the Corporation of any of its loans or upon any other action relating to financial assistance resulting in the receipt of proceeds by the Corporation, any proceeds therefrom shall be subject to section 154.

SUBTITLE E—CORPORATION CONSTRUCTION PROJECTS

CORPORATION CONSTRUCTION AND CONTRACTOR OPERATION

SEC. 141. (a) Subject to the requirements of sections 122(a)(1)(D) and 142, the Corporation is authorized to own, and shall contract for the construction and operation of, synthetic fuel projects (hereinafter referred to as a "Corporation construction project"): *Provided*, That, prior to the approval of a comprehensive strategy pursuant to section 122 (b) and (c), the Corporation may undertake such projects only if, in the judgment of the Board of Directors, the Corporation construction project is necessary to meet the objectives of section 122(a)(2) and would not otherwise be constructed pursuant to subtitle D.

(b) The power of the Corporation to own and contract for the construction and operation of a corporation construction project shall include, among other things, the authority to—

- (1) take delivery of synthetic fuels from such project;
- (2) transport and store and have processed and refined such synthetic fuels;
- (3) sell such synthetic fuels to a person; and
- (4) take all actions reasonably necessary therewith: *Provided*, That to the maximum extent feasible, the Corporation shall utilize the private sector for the activities associated with this subsection.

(c) Contracts for corporation construction projects shall be negotiated on the basis of solicited bids pursuant to section 123: *Provided*, That any such contracts shall be expressly contingent upon the availability of sufficient funds.

(d) The Corporation is authorized to undertake contractual agreements with, among others, any Federal entity (including, but not limited to, the Department of Energy, the United States Army Corps of Engineers, and the Tennessee Valley Authority) to provide the design, the construction or the management of the operation of corporation construction projects: *Provided*, That in the case of a Federal entity, such entity has the available experienced personnel to perform such project management function.

LIMITATIONS ON CORPORATION CONSTRUCTION PROJECTS

SEC. 142. (a) Prior to approval of a comprehensive production strategy pursuant to section 122 (b) and (c), the Corporation is authorized not more than

three Corporation construction projects subject to the requirements of section 122(a)(1)(D) and 141.

(b) Subject to the requirements of sections 122(a)(1)(D) and 141, proposals for any Corporation construction projects in excess of the three such projects authorized in subsection (a) shall be submitted to the Congress. Such proposals shall be deemed approved after sixty calendar days of continuous session of the Congress have expired following the date of submission unless either House of Congress has, during such sixty-day period, adopted a resolution disapproving such proposed project.

(c) After the approval of a comprehensive production strategy pursuant to section 122(b) and (c), the Corporation shall not undertake new, or expand existing Corporation construction projects.

ENVIRONMENTAL, LAND USE, AND SITING MATTERS

Sec. 143. (a) Corporation construction projects and joint ventures by the Corporation pursuant to section 136 shall be subject to all Federal and nondiscriminatory State and local environmental, land use, and siting laws to the same extent as such laws apply to privately sponsored synthetic fuel projects receiving financial assistance under this Title and other similarly situated and used property. Nothing in this section shall be deemed to limit the powers of the Energy Mobilization Board with respect to projects constructed under this subtitle or section 136.

(b) Contracts for the construction and operation of Corporation construction projects shall provide for the monitoring of the environmental and health related emissions from the construction and operation of such project. Such monitoring shall be conducted in accordance with a plan developed by the contractor after consultation with the Environmental Protection Agency and the Department of Energy.

PUBLIC DISCLOSURE

Sec. 144. Information collected by the Corporation as a result of the activities directly associated with a corporation construction project authorized by this subtitle shall be cataloged and, upon request, any such information shall be made available to the public, except that this section shall not require disclosure of matters exempted from mandatory disclosures by section 552(b) of title 5, United States Code with respect to corporation construction projects. The disclosure of information by the Corporation, its Directors, officers, and employees shall be subject to the provisions of section 1905 of title 18, United States Code.

PROJECT REPORTS

Sec. 145. Within three years of the initial operation of each Corporation construction project, the Corporation shall publish a report providing detailed information including but not limited to—

(a) whether the synthetic fuel product can be sold at a price which is competitive with imported crude oil;

(b) whether such technology can be operated on a commercial scale in compliance with applicable environmental requirements, including the Federal Water Pollution Control Act, as amended (33 U.S.C. 1151-1175) and the Clean Air Act as amended (42 U.S.C. 7400 and following);

(c) the effect on regional and local water supplies of the project and the commercial operation of such technology;

(d) the health effects on workers and other persons of the projects including, but not limited to, any carcinogenic effects; and

(e) the social and economic impacts on local communities which were most directly affected by such projects.

FINANCIAL RECORDS

Sec. 146. Recipients of contracts under this subtitle shall keep such records and other pertinent documents as the Corporation shall prescribe, including, but not limited to, records which fully disclose the disposition of the proceeds of such assistance, the cost of any corporation construction project and such other records as the Corporation may require to facilitate an effective audit. The Corporation and the Comptroller General of the United States or their duly authorized representatives shall have access, for the purpose of audit, to such reports and other directly pertinent documents.

SUBTITLE F—CAPITALIZATION AND FINANCE

OBLIGATIONS OF THE CORPORATION

SEC. 151. (a) To the extent provided in appropriation Acts, the Corporation is authorized to issue, solely to the United States of America acting by and through the Secretary of the Treasury (who shall retain), notes or other obligations of the Corporation in the aggregate principal amount of \$88,000,000,000 as follows: \$20,000,000,000, including such sums as necessary for initial administrative expenses, shall become available to the Corporation on the date of enactment of this Title and the remainder shall become available upon approval of a comprehensive strategy pursuant to section 122.

(b) The Corporation shall not issue any note or other obligation to the Secretary of the Treasury without prior consultation with the Secretary of the Treasury.

LIMITATIONS ON TOTAL AMOUNT OF OBLIGATIONAL AUTHORITY

SEC. 152. (a) The Corporation may not incur obligations or make commitments, including administrative expenses and other operating costs, in excess of \$88,000,000,000 in the aggregate: *Provided, however*, That prior to the approval of a comprehensive strategy pursuant to section 122 such obligations shall not exceed \$20,000,000,000 in the aggregate.

(b) For purposes of determining the Corporation's compliance with this section, loans by the Corporation shall be counted at the initial face value of the loan, loan guarantees shall be valued at the face value of the loan guarantee, price guarantees and purchase agreements shall be valued by the Corporation as of the date of each such contract based upon the Corporation's estimates of its maximum potential liability pursuant to section 131(k) under each contract; and joint-ventures and corporation construction projects shall be valued at the current estimated costs to the Corporation. Such determination shall be made in accordance with generally accepted accounting principles, consistently applied. If more than one form of financial assistance is to be provided to any one synthetic fuel project or if the financial assistance agreement provides a right to the Corporation to purchase the synthetic fuel project, then the obligations and commitments thereunder shall be valued at the maximum potential on such project at any time during the life of such project.

(c) Any commitment by the Corporation to provide financial assistance or make capital expenditures which are nullified or voided for any reason shall not be considered in the aggregate for the purpose of subsection (a).

BUDGETARY TREATMENT

SEC. 153. The obligations and outlays incurred by the Secretary of the Treasury in connection with the purchase of notes and other obligations of the Corporation shall be included in the totals of the budget of the United States Government. The receipts and disbursements of the Corporation in the discharge of its functions shall be presented annually in the budget of the United States Government but shall not be included in the totals of the budget.

RECEIPTS OF THE CORPORATION

SEC. 154. (a) Moneys of the Corporation, other than those received pursuant to sections 139(b) and 151, shall be used to defray administrative expenses and, to the extent that surplus is available thereafter, to provide financial assistance pursuant to subtitle D. In the event that additional surplus is available thereafter such additional surplus shall, when authorized by the Board of Directors, be used in the purchase for redemption and retirement of any notes or other obligations of the Corporation.

(b) Moneys of the Corporation not otherwise employed shall be—

(1) deposited with the Treasury of the United States subject to withdrawal by the Corporation, by check drawn on the Treasury of the United States by a Treasury disbursing officer, or

(2) with approval of the Secretary of the Treasury, deposited in any Federal Reserve bank, or

(3) deposited in federally insured interest bearing accounts subject to withdrawal by the Corporation.

TAX STATUS

SEC. 155. (a) The Corporation, its franchise, capital, reserves, surplus, income and intangible property shall be exempt from all taxation now or hereafter imposed by the United States, or by any State, county, municipality, or local taxing authority, except that—

(1) any real property owned in fee by the Corporation shall be subject to State, territorial, county, municipal, or other local taxation to the same extent according to its value, as other similarly situated and used real property, without discrimination in the valuation, classification, or assessment thereof; and

(2) the Corporation and its employees shall be subject to any nondiscriminatory payroll and employment taxes intended to finance benefits based upon employment (such as social security and unemployment benefits) to the same extent as any privately owned corporation.

(b) With respect to any loan or debt obligation which is (1) issued after the enactment of this Title by, or on behalf of, any State or local government, (2) guaranteed by the Corporation prior to the approval of a comprehensive strategy of the issuer, as a general obligation of the issuer, the interest paid on such obligation and received by the purchaser thereof (or the purchaser's successor in interest) shall be included in gross income for the purposes of chapter 1 of the Internal Revenue Code of 1964, as amended: *Provided*, That the Corporation shall pay to such issuer such portion of the interest on such obligations, as determined by the Secretary of the Treasury to be appropriate after taking into account current market yields (A) on obligations of said issuer, if any, or (B) on other obligations with similar terms and conditions, the interest on which is not so included in gross income for purposes of chapter 1 of said Code, and in accordance with such terms and conditions as the Secretary of the Treasury shall require.

SUBTITLE G—UNLAWFUL ACTS, PENALTIES, AND SUITS AGAINST THE CORPORATION

FALSE STATEMENTS

SEC. 161. Whoever makes any statement, knowing or having reason to believe it to be false, or whoever knowingly overvalues any security, for the purpose of obtaining for himself or for any applicant any financial assistance under this Title, extension thereof by renewal, deferment of action, or otherwise, or the acceptance, release, or substitution of security therefor, or for the purpose of influencing in any way the action of the Corporation or for the purpose of obtaining money, property, contract rights, or anything of value, under this Title, shall be punished by a fine of not more than \$5,000 or by imprisonment for not more than two years, or both.

FORGERY

SEC. 162. Whoever—

(a) falsely makes, forges, or counterfeits any agreement, instrument, contract, or other obligation, or thing of value, an imitation of or purporting to be an agreement, instrument, said Code, and in accordance with such terms and conditions as the Secretary of the Treasury shall

(b) passes, utters, or publishes, or attempts to pass, utter, or publish, any false, forged, or counterfeited agreement, instrument, contract, or other obligation or thing of value purporting to have been issued by the Corporation, knowing the same to be false, forged, or counterfeited, or

(c) falsely alters any agreement, instrument, contract or other obligation, or thing of value, issued or purporting to have been issued by the Corporation, or

(d) passes, utters, or publishes, or attempts to pass, utter, or publish, as true any falsely altered or spurious agreement, instrument, contract, or other obligation, or thing of value issued or purporting to have been issued by the Corporation, knowing the same to be falsely altered or spurious.

shall be punished by a fine of not more than \$10,000 or by imprisonment for not more than five years, or both.

MISAPPROPRIATION OF FUNDS AND UNAUTHORIZED ACTIVITIES

SEC. 163. Whoever, being connected in any capacity with the Corporation—

(a) embezzles, extracts, purloins, or willfully misapplies any moneys, funds, securities, or other things of value, whether belonging to it or pledged or otherwise entrusted to the Corporation; or

(b) with intent to defraud the Corporation or any other body politic or corporate, or any individual or to deceive any officer, auditor, or examiner of the Corporation, makes any false entry in any book, report, or statement of or to the Corporation, or, without being duly authorized, draws any bond, or other obligation, or draft, bill of exchange, mortgage, judgment, or decree thereof, or

(c) with intent to defraud, participates, shares, or receives directly or indirectly any money, profit, property, or benefit through any transaction, loan, commission, contract, or any other act of the Corporation, or

(d) gives any unauthorized information concerning any future action or plan of the Corporation, or, having such knowledge, invests or speculates, directly or indirectly, in the securities or property of any company, bank, or corporation receiving financial assistance from the Corporation.

shall be punished by a fine of not more than \$10,000 or by imprisonment for not more than five years, or both. With respect to subsection (d) above, the Corporation is authorized to obtain injunctive relief against the threatened misuse of information.

CONSPIRACY

SEC. 164. Whoever conspires with another to accomplish any of the acts made unlawful by section 161, 162, or 163 shall, upon conviction thereof, be subject to the same fine or imprisonment, or both, as is applicable in the case of conviction for doing such unlawful acts.

INFRINGEMENT ON NAME

SEC. 165. No individual, association, partnership, corporation, or business entity may use the words "Synthetic Fuels Corporation" or a combination of these words in a manner which is likely to mislead or deceive, as the name or a part thereof under which he, she or it shall do business.

ADDITIONAL PENALTIES

SEC. 166. In addition to any other penalties provided in this subtitle, the defendant in any action brought pursuant thereto shall be liable to the Corporation for any loss by the Corporation and any profit or gain acquired by the defendant as a result of the conduct constituting the offense.

SUITS BY THE ATTORNEY

SEC. 167. (a) If the Corporation created pursuant to this title shall engage in or adhere to any action, practices, or policies inconsistent with the policy and purposes of this title, or shall obstruct or interfere with any activities authorized by this Title, or shall refuse, fail, or neglect to discharge the duties and responsibilities under this Title, or shall threaten any such violation, obstruction, interference, refusal, failure, or neglect, the district court of the United States for any district in which such corporation or other person resides or may be found shall have jurisdiction, except as otherwise prohibited by law, upon petition of the Attorney General of the United States, to grant such equitable relief as may be necessary or appropriate to prevent or terminate such conduct or threat.

(b) Nothing contained in this section shall be construed as relieving any person of any punishment, liability, or sanction which may be imposed otherwise than under this Title.

(c) Nothing in this section shall be deemed or construed to prevent the enforcement of the other provisions of this title by appropriate officials of the United States.

CIVIL ACTIONS AGAINST THE CORPORATION

SEC. 168. United States district courts, and courts referred to in section 460 of title 28, United States Code, and Public Law 95-157 shall have original jurisdiction for all civil actions against the Corporation: *Provided, however,* That the Corporation shall be regarded as "Federal agency" of the United States Government for the purposes of the Federal Tort Claims Act (28 U.S.C. 2671 et seq.) except that the Corporation may represent itself in any such action, may compromise any claims against it without seeking the approval of the Attorney General and shall pay any judgment or compromised claim from its funds: *And provided further,* That the Corporations shall be liable for contract claims only

if such claims are based upon a written contract to which the Corporation is an executing party. The liability of the Corporation shall be limited to the assets of the Corporation.

SUBTITLE H—GENERAL PROVISIONS

GENERAL POWERS

Sec. 171. (a) In carrying out the purposes of this Title, the Corporation shall have the power, consistent with the provisions of this Title—

(1) to adopt, alter, and rescind bylaws and to adopt and alter a corporate seal which shall be judicially noticed;

(2) to make agreements and contracts with individuals and private or governmental entities: *Provided, however,* That the Corporation shall not provide any financial assistance except as specifically permitted hereunder;

(3) to lease, purchase, accept gifts or donations of, or otherwise to acquire, and to own, hold, improve, use, or otherwise deal in or with, and to sell, convey, mortgage, pledge, lease, exchange, or otherwise dispose of, any property, real personal, or mixed, or any interest therein;

(4) to sue and be sued, subject to the provisions of section 168, in its corporate name and to complain and defend in any court of competent jurisdiction;

(5) to represent itself, or to contract for representation, in all judicial and other legal proceedings;

(6) subject to section 113, to select, employ, and fix the compensation (including, without limitation, pension, and health benefits, incentive compensation plans, paid vacation, sick leave, and other fringe benefits) of such officers, employees, attorneys, and agents as shall be necessary for the transaction of the business of the Corporation;

(7) to make provision for and designate such committees, and the functions thereof, as the Board of Directors may deem necessary or desirable;

(8) to indemnify Directors serving in a voting capacity and officers of the Corporation, as the Board of Directors may deem necessary or desirable;

(9) with the approval of the agency concerned, to make use of services, facilities, and property of any board, commission, independent establishment or executive agency or department of the executive branch in carrying out the provisions of this Title and to pay for such use, such payments to be credited to the applicable appropriation that incurred the expense;

(10) to determine and prescribe the manner in which obligations of the Corporation shall be incurred and its expenses allowed and paid;

(11) to obtain the services and fix the compensation of experts;

(12) to use the United States mails on the same terms and conditions as the executive departments of the United States Government; and

(13) to exercise all other lawful powers necessarily or reasonably related to the establishment and conduct of a corporate entity, to the achievement of the purposes of this title and the exercise of its powers, purposes, functions, duties, and authorized activities.

(b) The foregoing powers shall only be exercised in connection with administrative activities, financial assistance, and corporation construction projects authorized by this title.

(c) In addition to the powers granted under subsections (a) and (b), the Corporation may, in connection with any corporation construction project, acquire interests in real property, including property owned by any State or local government body or entity, including Indian tribes, only as necessary to provide access to the site for project site related transportation, power transmission, and other services, by the exercise of eminent domain in the United States district court for the district in which such real property is located: *Provided, That* such real property shall not include the site of the Corporation construction project nor property for any coal slurring pipeline: *Provided further,* That the Corporation may acquire such property by eminent domain only upon a finding by its Board of Directors that the property involved is necessary for access to such project and that no other reasonable alternative access to such facilities is available. Such findings shall not be reviewable.

COORDINATION WITH OTHER FEDERAL ENTITIES

Sec. 172. (a)(1) Prior to providing, or making any commitment to provide, financial assistance for any synthetic fuel project, the Corporation may seek the advice and recommendations of, or information or data maintained by, any

Federal agency to assist the Corporation in determinations to be made hereunder. Any such advice, recommendation, information, or data, to the extent permitted by law, shall be provided to the Corporation within thirty days of its request: *Provided, however,* That where such information or data comprises a trade secret, or confidential or proprietary data, the Corporation shall agree to receive such data under the same terms of confidentiality agreed to by the agency. For the purposes of section 1906 of title 18, United States Code, the Corporation shall be deemed to be an agency of the United States.

(2) At the request of the Department of Energy or the Environmental Protection Agency for access to information or facilities of the Corporation relating to environmental matters, the Corporation shall afford the requesting agency reasonable access thereto, except to the extent prohibited by law.

(b) The Secretary of Energy is authorized to provide such technical assistance to the Corporation as is necessary to carry out the purpose of this Title.

(c) The Corporation may contract on a reimbursable basis with Federal entities to provide technical, economic, environmental, and any other analyses and services which the Corporation deems necessary to accomplish the purposes of this Title.

PATENTS

Sec. 173. (a) Any contract to provide a loan pursuant to section 132, a loan guarantee pursuant to section 133 or a joint venture pursuant to section 136 may, in the judgment of the Board of Directors, require that whenever any invention is made or conceived in the course of or under such contract title to the patent for such invention shall vest in the Corporation and the Corporation shall have the right to license the patent on a nonexclusive basis.

(b) (1) In the case of any patent the title to which is vested in the Corporation, the Corporation may grant an nonexclusive license but it may not grant an exclusive or partially exclusive license except as provided in paragraph (2).

(2) The Corporation is authorized to grant an exclusive or partially exclusive license to a responsible applicant or applicants, upon terms reasonable under the circumstances, on the basis of competitive bids and following an opportunity for a hearing, upon notice in the Federal Register thereof to the public, only when, in the judgment of the Board of Directors, such exclusive or partially exclusive license is necessary to assure substantial utilization of such invention within a reasonable time.

(c) Each exclusive or partially exclusive license shall contain such terms and conditions as the Corporation may determine to be appropriate for the protection of the interests of the United States and the general public, including provision for the Corporation, commencing two years after the grant of a license pursuant to subsection (b), to terminate such license if (A) it has not been applied to the commercialization of domestic energy resources or (B) steps have not been taken as necessary to assure substantial utilization of such invention within a reasonable time.

(d) Loan or loan guarantee agreements entered into pursuant to sections 132 and 133, respectively, shall include such terms and conditions consistent with this subsection with respect to patents as the Corporation deems appropriate to protect the interests of the Corporation in the case of default. Such agreements shall require in the case of default that all patents, technology, and other proprietary rights resulting from the synthetic fuel project shall be available to the Corporation or its designee, to complete and operate the defaulting project. Such agreements shall contain a provision specifying that other patents, technology, and other proprietary rights owned by the borrower which are necessary for the purpose of completion and operation of the synthetic fuel project shall be licensed to the Corporation and its designees on equitable terms, including due consideration to the amount of the default payments due to the Corporation.

(e) Patents, technology, and proprietary rights vested in the Corporation as a result of default on a loan or loan guarantee agreements or vested in the Corporation pursuant to subsection (a) shall be transferred to the Secretary of Energy for administration under applicable law upon termination and liquidation of the Corporation.

(f) Any contract entered into by the Corporation pursuant to subtitle E shall be subject to section 9, subsections (a) through (m) of the Federal Nonnuclear Energy Research and Development Act of 1974 (42 U.S.C. 5908) except that, for the purpose of subtitle E, "Administrator" in section 9 shall mean the Chairman

of the Board of the Corporation; "Administration" in section 9 shall mean the Corporation; "Government" in subsections 9(a) and 9(d) shall mean the Government and the Corporation; "any Government agency" in subsection 9(h) (2) shall mean the United States, and "United States" in section 9 shall mean the Corporation. Section 9 of the Federal Nonnuclear Energy Research and Development Act of 1974 shall not apply to financial assistance pursuant to subtitle D.

(g) The United States Government shall have a royalty-free, nonexclusive license to any patent in which the Corporation owns title or reserves a license pursuant to subsection (a). The Corporation may assign title in any patent in which it has the title to the United States Government.

SMALL AND DISADVANTAGED BUSINESS UTILIZATION

SEC. 174. In providing financial assistance, the Corporation shall require the recipient thereof to provide for the fair and reasonable participation by small and disadvantaged businesses in the synthetic fuel project receiving financial assistance and the Corporation shall do so with respect to corporation construction projects under subtitle E.

RELATIONSHIP TO OTHER LAWS

SEC. 175. (a) No action of the Corporation except the construction and operation of synthetic fuel projects pursuant to subtitle E shall be deemed to be a "major Federal action significantly affecting the quality of the human environment" for purposes of section 102(2)(C) of the National Environmental Policy Act of 1969, as amended; and with respect to corporation construction projects, the Corporation shall be deemed to be a Federal agency for the purposes of such Act.

(b) The provisions of the Davis-Bacon Act and the Service Contracts Act shall apply to the Corporation as if it were an agency of the United States. All laborers and mechanics employed for the construction, repair, or alteration of synthetic fuel projects funded, in whole or in part, by the Corporation pursuant to section 132, 133, or 136 of this Title shall be paid wages at rates not less than those prevailing on projects of a similar character in the locality as determined by the Secretary of Labor in accordance with the Davis-Bacon Act, as amended. The Corporation shall not extend any loan or loan guarantee for construction, repair or alteration of synthetic fuel projects unless a certification is provided to the Corporation prior to the commencement of construction or at the time of filing an application for a loan or loan guarantee, if construction has already commenced, that these labor standards will be maintained upon the synthetic fuel project. The Secretary of Labor shall have, with respect to the labor standards specified in this provision, the authority and functions set forth in Reorganization Plan Numbered 14 of 1950 and section 276c of title 40.

(c) For the purposes of the Investment Company Act and the Public Utility Holding Company Act, the Corporation shall be deemed to be an instrumentality of the United States.

(d) The antitrust laws, as defined in section 12 of title 15, United States Code, shall apply to the Corporation as if it were an agency of the United States.

(e) Notwithstanding any provision of law, except as may be specifically provided by reference to this section in an Act or Acts enacted after the effective date of this Title, no law, rule, or regulation now existing or hereafter enacted or promulgated establishing or limiting, in any manner the price (including allocation or first sale and subsequent resale) chargeable for commodities or allocation thereof shall apply to synthetic fuel which is produced by a synthetic fuel project receiving financial assistance under this Title or produced by a corporation construction project under subtitle E.

(f) Nothing in this title shall be deemed or construed to make the Government Corporation Act (31 U.S.C. 841 et seq.) applicable to the Corporation.

(g) Except to the extent expressly provided herein, the Corporation shall not be deemed to be an agency of the United States or an instrumentality of the United States.

(h) Employees of the Corporation shall be covered by the provisions of the Longshoremen's and Harbor Workers' Compensation Act, as amended, which shall provide the exclusive remedy for the causes set forth therein.

(i) Nothing in this title shall be deemed to limit the powers of the Energy Mobilization Board with respect to synthetic fuel projects receiving financial assistance under this title or corporation construction projects.

(j) (1) For purposes of section 211(b) of the Powerplant and Industrial Fuel Use Act of 1978, a petitioner shall be deemed to have demonstrated that he meets the requirements of section 211(b) (1) and section 211(b) (2) of said Act if he has entered into a legally valid agreement with a qualified producer of synthetic fuels, for the future delivery of sufficient quantities of synthetic fuels, to be used at the facility for which the exemption is sought to comply with the applicable prohibitions of said Act. Evidence of the existence of such a legally valid agreement also shall be deemed to satisfy the requirement that the petitioner file and maintain a compliance plan satisfying the requirements of section 214(b) upon the submission of such evidence to the Secretary of Energy.

(2) For purposes of paragraph (1), a person shall be deemed to be a "qualified producer of synthetic fuels" if he receives a loan, loan guarantee, purchase agreement or price guarantee pursuant to this Title.

(3) In addition, in order to constitute a "legally valid agreement" for purposes of paragraph (1), the agreement with the qualified synthetic fuel producer must provide for initial deliveries of synthetic fuel within the time specified pursuant to section 211(e) of said Act.

(4) For purposes of section 211(b) of said Act, an extension or renewal under section 211(e) (1) or 211(e) (2) (B) thereof may be granted at the time the original exemption is issued, or at any subsequent date.

(5) Nothing in this subsection shall be construed to relieve the petitioner from compliance with the prohibition of subtitle A of title II of the Powerplant and Industrial Fuel Use Act of 1978 at the end of the exemption granted pursuant to section 211(b) of said Act.

SEVERABILITY

SEC. 176. If any provision of this Title, or the application of any such provision to any person or circumstance, shall for any reason be adjudged by any court of competent jurisdiction to be invalid, the remainder of this Title, or the application of such provision to persons or circumstances other than those to which it is held invalid, shall not be affected thereby.

FISCAL YEAR, AUDITS AND REPORTS

SEC. 177. (a) The fiscal year of the Corporation shall coincide with the fiscal year of the United States Government.

(b) (1) The Corporation shall retain a firm or firms of nationally recognized public accountants who shall prepare and report an annual audit of the accounts of the Corporation including the statements identified in section 851 of title 31, United States Code.

(2) The General Accounting Office is authorized to conduct such audits of the accounts of the Corporation and to report upon the same to the Congress, as such Office shall deem necessary or as the Congress may request, but not less than every three years.

(3) All books, accounts, financial records, reports, files, papers and property belonging to or in use by the Corporation shall be made available to the person or persons conducting the audit for verifying transactions.

(c) (1) The Corporation shall submit quarterly reports to the Congress and the President. Each report will state the aggregate sums then outstanding or committed for financial assistance under subtitle D and for Corporation construction projects under subtitle E, and a summary of any financial assistance retired or any synthetic fuel projects liquidated by the Corporation pursuant to subtitle I. Each report shall contain a listing of the concerns receiving financial assistance involved in Corporation construction projects.

(2) The quarterly report in which any expenditures or commitment to a concern or synthetic fuel project is first noted shall contain a brief description of the factors considered by the Corporation in making such expenditure or commitment. The report shall include (A) financial statements prepared in accordance with generally accepted accounting principles consistently applied as of the end of the Corporation's fiscal quarter preceding the date of the report and (B) compensation of persons employed or under contract by the Corporation at salary rates exceeding \$2,500 per month.

(d) (1) The Corporation shall submit to the Congress and the President an annual report containing, in addition to the information required in the quarterly report, (A) a general description of the Corporation's operations during the year, (B) a specific description of each project in which the Corporation is involved, (C) a status report on each such project, and (D) an evaluation of

the contribution which the project has made and is expected to make in fulfilling the purposes of this Title (including, where possible, a precise statement of the amount of domestic energy produced or to be produced thereby).

(2) The annual report shall describe progress made toward meeting the objectives (including the commercial production goals) of this Title and contain specific recommendations on what actions the Congress could take in order to facilitate the work of the Corporation in achieving the objectives of this Title. The annual report shall address the environmental impacts of the Corporation's generic programs and decisions.

(3) The annual report shall contain financial statements prepared by the Corporation in accordance with generally accepted accounting principles consistently applied and certified by the accountants retained under section (b) (1).

(e) On or before September 30, 1990, the Corporation shall submit to the Congress and the President a report evaluating the overall impact made by the Corporation and describing the status of each then current synthetic fuel project. This report shall contain a liquidation plan. The liquidation plan shall describe how each synthetic fuel project, and every substantial asset or liability of the Corporation will be liquidated, terminated, satisfied, sold, transferred, or otherwise disposed of. Each annual report thereafter made by the Corporation will describe the progress made in effecting such liquidation plan.

WATER RIGHTS

SEC. 178. (a) Nothing in this Title shall (1) affect the jurisdiction of the States and the United States over waters of any stream or over any ground water resource, (2) alter, amend, repeal, interpret, modify, or be in conflict with any interstate compact made by any States, or (3) confer upon any non-Federal entity the ability to exercise any Federal right to the waters of any stream or to any ground water resource.

(b) No project constructed pursuant to the authorities of this Title shall be considered to be a Federal project for purposes of the application for or assignment of water rights.

SUBTITLE I—DISPOSAL OF ASSETS

TANGIBLE ASSETS

SEC. 181. (a) (1) The Corporation, by and through its Board of Directors, is authorized, from time to time, on the basis of the criteria of subsection (b), to dispose of any portion or all of the tangible assets of the Corporation when in the best interests of the Corporation in carrying out the purposes of this Title either—

(A) on the basis of competitive bids, to sell to any person or concern any portion of the assets of the Corporation, or

(B) by transfer to a Federal agency of any portion or all of the tangible assets of the Corporation, or

(C) on the basis of a negotiated contract, consistent with paragraph (2), to sell to a person or concern any portion or all of the tangible assets of the Corporation.

(2) With regard to the sale of tangible assets pursuant to clause (a) (1) (C), the Corporation shall—

(A) publish in the Federal Register notice of the proposed sale of such asset,

(B) convene a prospective bidders conference, and

(C) no earlier than thirty days after such notice and conference, undertake negotiations for the sale of such asset.

(3) At least thirty days prior to the disposal of any tangible asset pursuant to paragraph (1), the Corporation shall notify the President, the Senate Committee on Energy and Natural Resources and the appropriate committee of the House of Representatives of the intended disposal of such tangible asset.

(b) For the purpose of this section, the term "tangible asset" shall mean any single asset, or aggregation of assets, with a value of \$1,000,000 or more.

(c) In establishing the acceptable terms and conditions of the sale or transfer of tangible assets constituting a synthetic fuel project, or portion thereof, or a Corporation construction project, or portion thereof, the Board of Directors shall make every reasonable effort—

- (1) to recover the financial investment, if any, of the Corporation in such assets,
- (2) to foster competition within the industry to which the assets are to be sold,
- (3) to assure that such assets will be productively utilized and, if possible, will continue in operation.
- (d) With regard to the sale or transfer of tangible assets not included under subsection (c), the Corporation shall establish terms and conditions for the sale or transfer of such tangible assets in order to maximize the financial return to the Corporation.

DISPOSAL OF OTHER ASSETS

SEC. 182. Except as provided for in section 181, the Corporation is authorized, from time to time, (1) consistent with the requirements of the Federal Property and Administrative Services Act, to sell to any person any portion of the assets of the Corporation, or (2) transfer to a Federal agency any portion of all of the assets of the Corporation.

SUBTITLE J—TERMINATION OF CORPORATION

DATE OF TERMINATION

SEC. 191. Notwithstanding any other provision of this Title—

- (a) the Corporation shall make no new commitments for financial assistance under subtitle D for synthetic fuel projects after September 30, 1990.
- (b) The Corporation shall terminate on September 30, 1995: *Provided, however,* That the President, on recommendation of the Board of Directors, may by Executive order, terminate the Corporation at an earlier date, but in no event prior to September 30, 1990.

WINDING UP OF THE CORPORATION'S AFFAIRS

- SEC. 192. (a) From and after the final commitment date under section 191 (a), the Board of Directors shall diligently commence all practical and reasonable steps to achieve an order winding up of the Corporation's affairs on or prior to its date of termination pursuant to section 191 (b).
- (b) The step taken pursuant to subsection (a) may include the disposal of the tangible assets of the Corporation pursuant to section 181 and the disposal of other assets pursuant to section 182.
- (c) On termination of the Corporation any contract or obligation for financial assistance pursuant to subtitle D shall be administered pursuant to section 193.

TRANSFER OF POWERS TO DEPARTMENT OF THE TREASURY

- SEC. 193. (a) If, on the date of termination of the Corporation, its Board of Directors shall not have completed the winding up of its affairs and the liquidation of its assets pursuant to subtitle I, the duty of completing such winding up of its affairs and liquidation shall be transferred to the Secretary of the Treasury, who for such purposes shall succeed to all the powers, duties, rights, and obligations of the Corporation, its Board of Directors and Chairman under this Title and nothing herein shall be construed to affect any right or privilege accrued, any penalty or liability incurred, any criminal or civil proceeding commenced, or any authority conferred hereunder, except as herein specifically provided in connection with such winding up of the affairs and liquidation of the remaining assets of the Corporation. Following such transfer, the Secretary of the Treasury may assign to any officer or officers of the United States in the Treasury Department the exercise and performance, under such Secretary's general supervision and direction, of any powers, duties, rights, and obligations so transferred from the Corporation to the Secretary.
- (b) When the Secretary of the Treasury finds that the liquidation of any remaining assets will no longer be advantageous to the United States and that all of the legal obligations of the Corporation have been provided for, the Secretary shall pay into the Treasury as miscellaneous receipts the unused balance of the moneys belonging to the Corporation and shall make a final report on the Corporation to the Congress. Thereupon the Corporation shall be deemed to be dissolved.

SUBTITLE K—DEPARTMENT OF THE TREASURY

AUTHORIZATIONS

SEC. 195. (a) (1) There is hereby authorized to be appropriated without fiscal year limitation to the Secretary of the Treasury \$88,000,000,000 to purchase and retain notes or other obligations of the Corporation. Such moneys shall be deposited within the Treasury in a separate account (hereafter called the "Synthetic Fuels Account") which shall be available to the Secretary for the purpose of carrying out the purposes of this Title.

(2) On the basis of notification to the Secretary of the Treasury of financial assistance by the Corporation, consistent with the formula set forth in paragraph 153(a) (1), the Secretary of the Treasury shall reserve within the synthetic fuel account an amount equal to the known and estimated liabilities of the Corporation. As amounts become available for this purpose, the Secretary shall repay to the general fund of the Treasury an amount equal to all lending which has been extended to the Corporation.

(3) Any obligations of the Corporation held by the Secretary of the Treasury shall be retired at the time the synthetic fuel account repays the general fund pursuant to this subsection.

(b) For purposes of purchasing the obligations of the Corporation pursuant to subsection (a), the Secretary of the Treasury is authorized to use as a public debt transaction the proceeds, from the sale of any securities hereafter issued under the Second Liberty Bond Act, and the purposes for which securities may be issued under such Act are extended to include such purchases.

(c) All redemptions, purchases, and sales by the Secretary of the Treasury of such obligations under this section shall be treated as public debt transactions of the United States.

TITLE II—GASOHOL

SHORT TITLE AND TABLE OF CONTENTS

SHORT TITLE

SEC. 201. (a) This Title shall be known as the "Gasohol Motor Fuels Act of 1979".

(b) TABLE OF CONTENTS.—

SUBTITLE A—FINDINGS AND PURPOSES

Sec. 202. Findings.
Sec. 203. Purposes.
Sec. 204. General Definitions.

SUBTITLE B—ESTABLISHMENT OF THE OFFICE OF ALCOHOL FUELS

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Sec. 213. Annual Report.
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SUBTITLE C—ALCOHOL FUEL PRODUCTION

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Sec. 221. Production Strategy.
Sec. 222. Solicitation of Proposals.

SUBTITLE D—FINANCIAL ASSISTANCE

Sec. 230. Authorization of Financial Assistance.
Sec. 231. Loan Guarantees Made by the Director.
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SUBTITLE E—AUTHORIZATION AND FUND

Sec. 240. Limitations on Total Amount of Obligation.
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SUBTITLE F—UTILIZATION OF EXCESS SUGAR

Sec. 250. Sugar Stocks for Gasohol.

SUBTITLE G—FEDERAL USE OF GASOHOL

Sec. 260. Use of Gasohol in Federal Motor Vehicles.

SUBTITLE H—MOTOR VEHICLE STUDY

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SUBTITLE I—NATURAL GAS PRIORITIES

Sec. 280. Priorities.

SUBTITLE J—STANDBY ALLOCATION

Sec. 290. Standby Authority.

SUBTITLE A—FINDINGS AND PURPOSES**FINDINGS**

Sec. 202. (a) The United States is currently importing large quantities of crude oil.

(b) A substantial portion of this crude oil is needed for the production of gasoline sold in interstate commerce.

(c) Renewable resources in the United States can provide a sufficient source of alcohol suitable for blending with gasoline or which may be used in lieu thereof, to decrease the need for imported oil.

PURPOSES

Sec. 203. The purposes of this Title are—

(a) to contribute toward the development of a secure liquid fuel supply in the United States by providing the foundation for a viable alcohol fuel industry;

(b) to increase the security and enhance the economic health of the United States by reducing our Nation's dependence on imported oil;

(c) to establish a mechanism for implementing improved natural resource practices on a broad scale;

(d) to establish a national goal for the production of alcohol fuels from renewable resources;

(e) to require the President to establish an independent office in the Department of Energy to expedite Federal financial assistance for the purpose of commercialization of alcohol fuels from renewable resources and to achieve the national goal; and

(f) to encourage and assist production of alcohol fuels by small alcohol fuel projects as well as larger alcohol fuel projects.

GENERAL DEFINITIONS

Sec. 204. As used in the title the term—

(1) "concern" shall mean any—

(A) person, or

(B) State or any political subdivision or governmental entity thereof, Indian tribe or tribal organization, or

(C) combination of the aforementioned, which is engaged, or proposes to engage, in an alcohol fuel project or projects pursuant to this title;

(2) "financial assistance" shall mean any of the following forms of financial assistance, or combination thereof—

(A) guarantees of, or commitments to guarantee, indebtedness, including principal and interest (hereinafter referred to as "loan guarantees");

(B) guarantees of, or commitments to guarantee, the price received or to be received by a concern from the sale of alcohol fuel hereinafter referred to as "price guarantee"; and

(C) contracts to purchase alcohol fuel, guarantees therefor or commitments therefor (hereinafter referred to as "purchase agreements");

(3) "person" means any individual, company, cooperative, partnership, corporation, association, consortium, unincorporated organization, trust estate, or any entity organized for a common business purpose;

(4) "State" means any of the fifty States, the District of Columbia, Puerto Rico, the Virgin Island, Guam, American Samoa, and the Commonwealth of the Northern Mariana Islands;

(5) "alcohol" means methanol, ethanol, or any other alcohol which is produced from renewable resources and which is suitable for use by itself or in combination with other fuels as a motor fuel;

(6) "alcohol fuel" means alcohol produced for use as a motor fuel;

(7) "motor fuel" means any substance suitable as a fuel for vehicles designed primarily for use on public streets, roads, highways, and off-road use;

(8) "alcohol fuel project" shall mean any new facility or expansion or improvement of an existing facility located in the United States for the purpose of commercial production of alcohol fuel, including the equipment, plant, machinery, supplies, and other materials associated with the facility and including accessory equipment for control of environmental emissions. It also may include the land, services, and working capital required directly for use in connection with the facilities for the production of alcohol fuel;

(9) "Secretary" means the Secretary of Energy;

(10) "United States" means each State of several States and the District of Columbia and its territories and possessions;

(11) "renewable resource" means any substance which is a source of energy, and which is available in an inexhaustible supply in the foreseeable future, such as crops and crop waste, timber, animal and timber waste, cellulosic waste, food processing waste, municipal and industrial waste, sewage, sludge, oceanic and terrestrial plants, and other organic matter;

(12) "Office" means the Office of Alcohol Fuels;

(13) "Director" means the Director of the Office of Alcohol Fuels;

(14) "small alcohol fuel project" means an alcohol fuel project with a capacity to produce not more than 2,000,000 gallons of alcohol per year; and

(15) "Indian tribe" means any Indian tribe, band, nation, or other organized group or community, including any Alaska Native village or regional or village corporation as defined in or established pursuant to the Alaska Native Claims Settlement Act which is recognized as eligible for the special programs and services provided by the United States to Indians because of their status as Indians.

SUBTITLE B—ESTABLISHMENT OF THE OFFICE OF ALCOHOL FUELS

ESTABLISHMENT

SEC. 210. (a) For the purpose of achieving the national goals described in section 220, the President shall establish the Office of Alcohol Fuels Production as an independent Office in the Department of Energy, to be headed by a Director.

(b) The Director shall be appointed by the President, by and with the advice and consent of the Senate and who shall serve at the pleasure of the President. The Director shall be compensated at the rate provided for in level IV of the Executive Schedule under section 5315 of title 5, United States Code.

AUTHORITY OF THE DIRECTOR

SEC. 211. (a) Subject to the general supervision of the Secretary, the Director shall be responsible for determining the terms and conditions of financial assistance agreements and the selection of recipients of financial assistance. The Director shall be subject to the direct supervision of the Secretary for all other matters.

(b) The authority of the Secretary under subsection (a) shall be nondelegable.

BUDGET SUBMITTAL

SEC. 212. In each annual authorization and appropriation request, the Secretary shall identify the portion thereof intended for the support of the Office and include a statement by the Office (a) showing the amount requested by the Office in its budgetary presentation to the Secretary and the Office of Management and Budget and (b) an assessment of the budgetary needs of the Office. Whenever the Office submits to the Secretary, the President, or the Office of Management and Budget, any legislative recommendation or testimony, or comments on legislation, prepared for submission to Congress, the Office shall concurrently transmit a copy thereof to the appropriate committees of Congress.

ANNUAL REPORT

SEC. 213. (a) (1) The Office shall submit to the Congress and the President an annual report containing—

- (A) a general description of the Office's operations during the year;
- (B) a specific description of each project in which the Office is involved;
- (C) a status report on each such project; and

(D) an evaluation of the contribution which the project has made and is expected to make in fulfilling the purposes of this Title (including, where possible, a precise statement of the amount of domestic energy produced or to be produced thereby).

(2) The annual report shall describe progress made toward meeting the objectives (including the commercial production goals) of this Title and contain specific recommendations on what actions the Congress could take in order to facilitate the work of the Office in achieving the objectives of this Title.

(3) The annual report shall contain financial statements prepared by the Office in accordance with generally accepted accounting principles consistently applied.

(b) On or before September 30, 1990, the Office shall submit to the Congress and the President a report evaluating the overall impact made by the Office and describing the status of each then current alcohol fuel project. This report shall contain a plan for the termination of the work of the Office.

INTERAGENCY COORDINATION

SEC. 214. The Director, acting through the Secretary, is required to consult with the Secretary of the Treasury, the Secretary of Agriculture, the Administrator of the Farmer's Home Administration, the Secretary of Transportation, the Secretary of Commerce, the Administrator of the Community Services Administration, the Administrator of the Environmental Protection Agency, or their appointed representatives, and to coordinate the programs under the Director's responsibility with other programs within the Department of Energy and in the above-mentioned Federal agencies, which are related to the production of alcohol fuel.

PUBLIC INFORMATION

SEC. 215. (a) The Secretary shall make available such public information concerning alcohol fuel as the Secretary may have at his disposal. Such information shall include but is not limited to information regarding types and availability of all loans relative to the production of alcohol fuel and construction of alcohol fuel plants, technical information concerning such production and construction, and other such technical and nontechnical public information as may be requested.

(b) The Secretary may, at his discretion, assess reasonable charges for any printed information made available and distributed to the public under subsection (a) of this section. However, in no case will such charges be assessed in excess of the actual cost of printing such information.

(c) The disclosure of information pursuant to this section shall be subject to section 552 of title 5, United States Code, and section 1905 of title 18, United States Code.

REPORT

SEC. 216. (a) Within one hundred and twenty days of the date of enactment of this legislation, the Secretary shall submit to the Congress a comprehensive list of all types of loans, grants, incentives, rebates, or any other such private, State, or Federal economic or financial benefits now in effect or proposed which can be or have been used for the study, planning, construction, and production of alcohol to be used as a motor fuel or motor fuel blend.

SUBTITLE C—ALCOHOL FUEL PRODUCTION

NATIONAL GOAL

SEC. 220. (a) The President, utilizing the provisions of this Title and any other applicable provision of law, shall seek to achieve a national goal of a volume of alcohol fuel from renewable resources equal to 10 per centum of the estimated gasoline consumption in the United States by 1990, subject to the results of the report prescribed in section 221.

(b) (1) Within six months after the date of enactment of this Title the Director of the Office shall submit a report to the Congress recommending a national production goal for alcohol fuels for the calendar year 1982. The goals shall be as high as is technically and economically feasible, taking into account any other factors that the Director deems appropriate, but in no case less than 60,000 barrels per day. The report shall include an analysis substantiating the recommended goal.

(2) The President shall exercise the authority under this Title and under other applicable provisions of law, so that the Nation shall achieve the production goal recommended under paragraph (1), or an alternative goal which he determines and transmits to the Congress, together with a report substantiating the alternative goal.

PRODUCTION STRATEGY

SEC. 221. (a) (1) In order to assure achievement of the national goal set forth in section 220, the Office shall—

(A) pursuant to section 222(a), solicit proposals for alcohol fuel projects;

(B) pursuant to section 230(a), provide financial assistance to those proposals acceptable to the Director; and

(C) after providing financial assistance pursuant to clauses (A) and (B), if in the judgment of the Director, there are, or will be, insufficient acceptable proposals as necessary to achieve the national goal, the Office shall undertake to negotiate contracts pursuant to subtitle D, as necessary.

(2) Prior to the adoption of a comprehensive strategy pursuant to subsections (b) and (c), the Office in discharging its responsibilities under paragraph (1) shall employ financial assistance pursuant to subtitle D in such manner as will, in the judgment of the Director—

(A) as a first priority, assure the achievement of the goal established under section 220(b)(1); and

(B) as a second priority, assure the commercial availability of new technologies (including differing processes, methods, and techniques) which will be able to utilize new feedstocks, or which will have the capability of utilizing multiple feedstocks, at least some of which are not now considered to be feedstocks for commercial operations, in order to achieve the national goal.

(b) The Office shall, consistent with the purposes of this title, establish a comprehensive strategy to achieve the national alcohol fuel production goal set forth in section 220(a). Such strategy shall include in its formulation consideration of all practical means for the commercial production of alcohol fuel from renewable resources, and report on the feasibility of attaining the national alcohol fuels production goal, pursuant to section 220(a). Such strategy shall, to the extent feasible, set forth the recommendation of the Director on the objectives and schedules of the Office.

(c) Not later than September 30, 1982, the Office shall submit its proposed comprehensive strategy to the Congress. The Director may, consistent with the purposes of this title, amend the approved strategy if, in the Director's judgment, such amendment is necessary to achieve the national alcohol fuel production goal set forth in section 220(a). Any such amendment and its justification shall be included in the subsequent annual report to the Congress pursuant to section 213(a).

SOLICITATION OF PROPOSALS

SEC. 222. (a) The Officer is hereby directed, from time to time, to solicit from concerns proposals for financial assistance for alcohol fuel projects, which proposal shall serve as the basis for negotiations of contracts for financial assistance pursuant to subtitle D.

(b) Within six months from the date of enactment of this title, the Office shall make the initial solicitation directed by subsection (a).

(c) For the purpose of extending applications for financial assistance, the Office shall establish a procedure for certifying that an applicant is eligible for such financial assistance;

(1) the Office shall establish this procedure within six months after the enactment of this title;

(2) the Office shall solicit and receive public views and comments concerning this procedure;

(3) information explaining this procedure and all materials necessary to apply for such certification shall be published in the Federal Register, and shall be made generally available through the Agriculture Extension Service, the Energy Extension Service, Department of Energy Offices, and other appropriate regional and local offices of the Federal Government, at the discretion of the Director;

(4) all locations where such information and material are available, shall accept and file applications for certification, and shall forward the applications to the Office;

(5) the Office shall determine the disposition of the application for certification within ninety days after receipt of the application: Provided, That no time shall be counted against the ninety days, when mutually agreed upon by the applicant and the Office;

(6) when so certified, the Office shall enter into negotiations with the applicant to determine the terms and conditions of the contract. In order to expedite the process of negotiation, the Director may make a unilateral offer of uniform terms and conditions, including, in the case of price guarantees and purchase guarantees, price. If the Director does propose a uniform price, he shall consult with the Secretary of Energy, and shall insure that such price shall serve as a sufficient incentive to the development of the domestic alcohol fuel market;

(7) the certification procedure established by the Office shall provide for categories of alcohol producers according to size, providing, to the maximum extent feasible, the simplest procedure for the smaller producers; and

(8) an applicant may obtain certification from the Office only upon a showing that he has obtained all necessary Federal, State, and local permits: *Provided*, That the Office may waive the requirements of this subsection if the applicant has filed for all necessary Federal, State, and local permits, and there is a probability that the applicant will obtain such permits.

(d) The Office shall, in cooperation with the Department of Agriculture, provide technical assistance to small alcohol fuel projects.

(e) The Office shall, working through the Energy Extension Service, provide educational projects on a wide geographic basis to demonstrate equipment suitable for use by small alcohol fuel projects in the production of alcohol fuel. Such projects shall be for the purpose of encouraging new small alcohol fuel projects.

SUBTITLE D—FINANCIAL ASSISTANCE

AUTHORIZATION OF FINANCIAL ASSISTANCE

Sec. 230. (a) Subject to the limitations set forth in this title, the Office is authorized and empowered upon such terms and conditions as the Director shall determine (1) to provide financial assistance to any concern which is engaged, (2) which proposes to engage, in an alcohol fuel project, (3) to select concerns to receive such assistance, (4) with the consent of the recipient, to renew, modify, extend such financial assistance, and (5) in connection with the provision of financial assistance, require such security and collateral as the Director deems appropriate for the payment of any fixed or contingent obligations to the Federal Government.

(b) All contracts and instruments of the Office to provide, or providing, for financial assistance shall be general obligations of the United States backed by its full faith and credit.

(c) Subject to the conditions of any contract for financial assistance, such contract shall be incontestable in the hands of the holder, except as to fraud or material misrepresentation on the part of the holder.

(d) No financial assistance may be provided unless an application therefor has been submitted to the Office in such manner and containing such information as the Office may require.

(e) The Office in providing financial assistance shall give due consideration to maintaining competition.

(f) Every applicant for financial assistance under this title shall, as a condition precedent thereto, consent to such examinations and reports thereon as the Office or its designee may require for the purposes of this title. The Office shall require such reports and records as it deems necessary from any recipient of financial assistance in connection with activities carried out pursuant to this title. The Office is authorized to prescribe the manner of keeping records by any recipient of financial assistance and the Office or its designee shall have access to such records at all reasonable times for the purpose of insuring compliance with the terms and conditions upon which financial assistance was provided.

(g) In no case shall the aggregate amount of financial assistance made or committed under this title to any one concern exceed at any one time 20 per centum of the obligation authority of the Office authorized under section 240.

(h) Each price guarantee under section 232 or a purchase agreement under section 233 shall specify in dollars the maximum amount of the liability of the Federal Government thereunder.

(i) Priority for financial assistance shall go to applicants demonstrating a likelihood of economic viability.

(j) Not less than one-third of the amount authorized in section 240(a) for obligations or commitments shall be used to support small alcohol fuel projects.

(k) Priority for financial assistance under this subtitle shall accrue to those alcohol fuel projects whose alcohol fuel production will, as determined by the Director, likely displace a greater quantity of motor fuel by substitution of such fuel than the quantity of motor fuel consumed in the production of such alcohol fuel. The Director shall establish guidelines for use in granting such priority, which will seek to decrease over an appropriate period of time the relative consumption of motor fuel derived from petroleum in the production of such alcohol fuel.

(l) Whenever the Office, by one or more actions, awards a combination of two or more forms of financial assistance for a single alcohol fuel project, the Office shall insure that the recipient of such financial assistance shall bear a reasonable degree of risk in the construction and operation of such project.

LOAN GUARANTEES MADE BY THE DIRECTOR

SEC. 231. (a) (1) The Director is authorized, on such terms and conditions as he may prescribe, to commit to, or enter into loan guarantees against loss of principal and interest on bonds, notes, or other obligations (including refinancing thereof) issued solely to provide funds to any concern for an alcohol fuel project: *Provided*, That the Director shall not guarantee more than 90 per centum of the total costs of the alcohol fuel project, as estimated by the Director as of the date of the guarantee or commitment to guarantee. In the event the total costs of the project are thereafter estimated to exceed the total costs initially estimated, by the Director, he may in addition, upon application therefor, guarantee up to 60 per centum of the difference between the then estimated total costs and the total costs initially estimated.

(2) Any guarantee made by the Director under this section shall not be terminated, canceled, or otherwise revoked, except in accordance with the terms thereof; shall be conclusive evidence that such guarantee complies fully with the provisions of this Title and of the approval and legality of the principal amount, interest rate, and all other terms of the securities, obligations, or loans and of the guarantee; and shall be valid and incontestable in the hands of a holder of a guaranteed security, obligation, or loan, except for fraud or material misrepresentation on the part of such holder.

(b) If the Director determines that—

(1) the borrower is unable to meet payments and is not in default; it is in the public interest to permit the borrower to continue to pursue that purposes of such project; and the probable net benefit to the Federal Government in paying the principal and interest due under a loan guarantee agreement will be greater than that which would result in the event of a default;

(2) the amount of any payment which the Office would be required to pay shall be no greater than the amount of principal and interest which the borrower is obligated to pay at that time; and

(3) the borrower agrees to reimburse the Office for such payment on terms and conditions, including interest, which are satisfactory to the Director, then the Office is authorized to pay the lender under a loan guarantee agreement, an amount not greater than the principal and interest which the borrower is obligated to pay.

(c) The terms and conditions of loan guarantees shall provide that, if the Director makes a payment of principal or interest upon the default by a borrower, the Department of Energy shall be subrogated to the rights of the recipient of such payment (and such subrogation shall be expressly set forth in the loan guarantee or related agreements).

(d) For purposes of this section an alcohol fuel project includes any facility having a noncommercial purpose, if the definition of alcohol fuel project in section 204(8) is otherwise met, and if the owner or joint owners of the facility will consume the alcohol as a motor fuel.

PRICE GUARANTEES MADE BY THE DIRECTOR

SEC. 232. The Director is authorized, on such terms and conditions as he may prescribe, to commit to, or enter into price guarantees providing that the price that a concern will receive for all or part of the production from an alcohol fuel

project shall not be less than a specified sales price determined as of the date of execution of the commitment or the price guarantee: *Provided*, That no such price guarantee shall be based upon a "cost plus" arrangement or variant thereof which guarantees a profit to the concern: *Provided further*, That if the Director determines in his sole discretion that such project would not otherwise be satisfactorily completed or continued and that completion or continuation of such project would be necessary to achieve the national goal, the sales price set forth in the price guarantee may be renegotiated.

PURCHASE AGREEMENTS MADE BY THE DIRECTOR

SEC. 233. (a) The Director is authorized, on such terms and conditions as he may prescribe, to commit to, or enter into or commit to enter into purchase agreements for all or part of the production from an alcohol fuel project. The sales price specified in a purchase agreement shall not exceed the estimated prevailing market price as of the date of delivery, as determined by the Secretary of Energy, unless the Director determines that such sales price must exceed the market price in order to (1) insure the production of alcohol fuel to achieve the goals established by section 220, and (2) as is necessary to insure the demonstration of new technology.

(b) The Director in entering into, or committing to enter into a purchase agreement shall require—

(1) assurance that the quality of the alcohol fuels purchased meets standards for the use for which such fuels are purchased;

(2) assurances that the ordered quantities of such fuels are delivered on a timely basis; and

(3) such other assurances as may reasonably be required.

(c) (1) The Office is authorized to take delivery of alcohol fuels pursuant to a purchase agreement. In any case in which the Office accepts delivery of such fuel, such alcohol fuel shall be used by an appropriate Federal agency. Such Federal agency shall pay the prevailing market price, as determined by the Secretary of Energy.

(2) The Director shall consult with the Secretary of Defense and the Administrator of the General Services Administration in the performance of his duties under this subsection. The Director is then authorized and directed to designate a Federal agency for receipt of this alcohol, in accordance with existing law.

(d) Each purchase agreement, or commitment to enter into a purchase agreement, shall provide that the office, on behalf of the Federal Government, retains the right to refuse delivery of the alcohol fuels involved upon such terms and conditions as shall be specified in the purchase agreement.

CONTROL OF ASSETS

SEC. 234. (a) The Office may acquire an alcohol fuel project only by foreclosure of a security interest or pursuant to a default under any financial assistance contract.

(b) Such project shall be disposed of according to existing law.

FEES

SEC. 235. The Office may charge and collect fees in connection with the financial assistance provided pursuant to this Title: *Provided*, That such fees shall not exceed 1 per centum of the amount of such financial assistance.

DISPOSITION OF SECURITIES

SEC. 236. The Director shall transfer to the Secretary of the Treasury any part of the notes, bonds, or any other evidences of indebtedness of any other person ownership of which is acquired by the Office pursuant to this Title, and the Secretary of the Treasury shall dispose of them according to applicable law.

PATENTS

SEC. 237. (a) Any contract to provide a loan guarantee pursuant to section 231 may, in the judgment of the Director, require that whenever any invention is made or conceived in the course of or under such financial assistance title to

the patent for such invention shall vest in the United States and the Secretary shall have the right to license the patent on a nonexclusive basis.

(b) (1) In the case of any patent the title to which is vested in the United States, pursuant to this section, the Secretary may not grant an exclusive or partially exclusive license except as provided in paragraph (2).

(2) The Secretary is authorized to grant an exclusive or partially exclusive license to a responsible applicant or applicants, upon terms reasonable under the circumstances, on the basis of competitive bids and following an opportunity for a hearing, upon notice in the Federal Register thereof to the public, only when, in the judgment of the Secretary, such exclusive or partially exclusive license is necessary to assure substantial utilization of such invention within a reasonable time.

(c) Each exclusive or partially exclusive license shall contain such terms and conditions as the Secretary may determine to be appropriate for the protection of the interests of the United States and the general public, including provisions for the Secretary, commencing two years after the grant of a license pursuant to subsection (b), to terminate such license if (A) it has not been applied to the commercialization of alcohol fuel production from domestic resources or (B) steps have not been taken as necessary to assure substantial utilization of such invention within a reasonable time.

(d) Loan guarantee agreements entered into pursuant to section 231 shall include such terms and conditions consistent with this subsection with respect to patents as the Director deems appropriate to protect the interests of the United States in the case of default. Such agreements shall require in the case of default that all patents, technology, and other proprietary rights resulting from the alcohol fuel project shall be available to the Secretary or his designee. Such agreement shall contain a provision specifying that other patents, technology, and other proprietary rights owned by the borrower which are necessary for the purpose of completion and operation of the alcohol fuel project shall be licensed to the Secretary and his designees on equitable terms, including due consideration to the amount of the default payments due to the Office.

SUBTITLE E—AUTHORIZATION AND FUND

LIMITATIONS ON TOTAL AMOUNT OF OBLIGATION

Sec. 240. (a) The Office may not incur obligations or make commitments in excess of \$650,000,000 in the aggregate.

(b) For purposes of determining the Office's compliance with this subsection, loan guarantees shall be valued at the initial face value of the loan guarantee, price guarantees and purchase agreements shall be valued by the Office as of the date of each such contract based upon the Office's estimates of its maximum potential liability pursuant to section 230(h) under each contract. Such determination shall be made in accordance with generally accepted accounting principles, consistently applied. If more than one form of financial assistance is to be provided to any one alcohol fuel project, then the Office's obligations thereunder shall be adjusted so that they reflect the Office's maximum exposure on such project.

(c) Any commitments by the Office to provide financial assistance which are nullified or voided for any reason shall not be considered for the purposes of subsection (a).

THE FUND

Sec. 241. (a) There is hereby created within the Treasury a separate fund (hereinafter in this section called the "fund") which shall be available to the Office without fiscal year limitation for the purpose of carrying out the program authorized by this Title.

(b) All amounts received by the Office, fees, and any payments derived by the Office from operations under this title, shall be deposited in the fund, and shall be available subject to appropriations to carry out the purposes of this Title.

(c) All payments on obligations appropriate expenses (including reimbursements to other Government accounts), and repayments pursuant to operations of the Office under this Title shall be paid from the fund. If at any time the Director determines that moneys in the fund exceed the present and reasonably foreseeable future requirements of the fund, such excess shall be transferred to the general fund of the Treasury.

(d) To enable the Director to discharge his responsibilities as authorized by this Title, the Director is authorized, as provided for in appropriation Acts, to issue to the Secretary of the Treasury, not to exceed \$450,000,000 in notes or other obligations in such forms and denominations, bearing such maturities, and subject to such terms and conditions as may be prescribed by the Secretary of the Treasury. Redemption of such notes or obligations shall be made by the Director from appropriations or other moneys available under subsection (b) for financial assistance authorized by subtitle D. Such notes or other obligations shall bear interest at a rate determined by the Secretary of the Treasury, which shall be not less than a rate determined by taking into consideration the average market yield on outstanding marketable obligations of the United States of comparable maturities during the month preceding the issuance of the notes of other obligations. The Secretary of the Treasury may at any time sell any of the notes or other obligations acquired by him under this subsection.

(e) There is hereby authorized to be appropriated to the fund \$200,000,000 without fiscal year limitation. Of this amount, no more than \$10,000,000 shall be used for administrative expenses in fiscal year 1980.

(f) Upon establishment of the Synthetic Fuels Account pursuant to section 195(a)(1) of Title I of this Act—

(1) \$650,000,000 less any amount otherwise appropriated pursuant to the authority of this Title shall be transferred from such fund to the fund established by this section, and such sum shall be available solely for the expenditures made by the Office, as provided in this Title, without fiscal year limitation; and

(2) the authority of subsections (d) and (e), to the extent that they have not already been exercised, shall no longer be available.

SUBTITLE F—UTILIZATION OF EXCESS SUGAR

SUGAR STOCKS FOR GASOLINOL

SEC. 250. (a) Within three months of the date of enactment of this Title, the Commodity Credit Corporation (hereafter referred to as the "Corporation" in this section) shall, pursuant to section 1427 of title 7 of the United States Code (section 407 of the Commodity Credit Corporation Charter Act), make every reasonable effort to sell its stocks of sugar (whether raw or processed) from crop years prior to and including 1978 (such crop years to be designated by the Secretary of Agriculture) in accordance with the requirements of such section 1427. Notwithstanding any other provisions of law, the Corporation shall make every reasonable effort to sell any such sugar stocks not sold after such three-month period without regard to the price requirements of such section 1427, for the restricted use (1) of processing into ethanol for use in motor fuel, or (2) as a livestock feed.

(b) For any stocks of sugar (whether raw or processed) from crop years after 1978 (such crop years to be designated by the Secretary of Agriculture), the Corporation shall, pursuant to such section 1427, make every reasonable effort to sell such stocks in accordance with such section 1427 within a reasonable time (such time to be determined by the Secretary of Agriculture, taking into account market conditions, the price support program and the objectives of such section 1427, but in any event no longer than one-year after acquisition of such sugar). Notwithstanding any other provision of law, the Corporation shall make every reasonable effort to sell any such sugar stocks not sold after such one year period, without regard to the price requirements of such section 1427, for the restricted use (1) of processing into ethanol for use in motor fuel, or (2) as a livestock feed.

(c) If the requirements of subsections (a) and (b) do not result in substantial sales of the stocks of sugar held by the Commodity Credit Corporation, within a reasonable time (but no longer than one year after the Corporation is authorized to sell such stocks without regard to the price requirements of such section 1427) then such Corporation shall enter into processing agreements for the purpose of processing the stocks into ethanol, whereupon the Corporation shall make this ethanol available for purchase for the exclusive use as a motor fuel in motor vehicles owned or leased by the Federal Government.

(d) Nothing in this section shall be construed as modifying the application to such sugar stocks of the provisions of such section 1427, except to the extent expressly provided in this section.

SUBTITLE G—FEDERAL USE OF GASOHOL

USE OF GASOHOL IN FEDERAL MOTOR VEHICLE

SEC. 260. (a) Notwithstanding any other provision of law, motor vehicles owned or leased by the Federal Government and which are capable of operating on gasohol, shall use gasohol where available at reasonable prices and in reasonable quantities.

(b) The President may promulgate exceptions to the requirement of subsection (a) where necessary to protect the national security.

(c) For the purposes of this section, the Secretary shall define, by rule, the meaning of the term "gasohol", including specifications for its use.

SUBTITLE H—MOTOR VEHICLE STUDY

MOTOR VEHICLE STUDY

SEC. 270. The Secretary shall in consultation with the Secretary of Transportation submit to the Congress within nine months of the date of enactment of this Title a report on—

(a) the need for and practicality of, mandating through legislation that any new motor vehicle sold in the United States shall be capable of using gasohol as a motor fuel in specified alcohol-gasoline mixtures, including either methanol or ethanol, or alcohol as the only fuel; and

(b) the need for any other legislation to address technical or institutional barriers to the widespread marketing of gasohol.

SUBTITLE I—NATURAL GAS PRIORITIES

PRIORITIES

SEC. 280. (a) For the purposes of section 401 of the Natural Gas Policy Act of 1978 (Public Law 95-621) the term "essential agricultural use" shall include use of natural gas in sugar refining for production of alcohol.

(b) For the purposes of section 401 of the Natural Gas Policy Act of 1978 (Public Law 95-621) the term "essential agricultural use" shall include use of natural gas for agricultural production on set-aside acreage or acreage diverted from the production of a commodity (as defined in the Agricultural Act of 1949, as amended) to be devoted to the production of any commodity for conversion into industrial hydrocarbons and blending with gasoline or other fossil fuels for use as motor or industrial fuel.

SUBTITLE J—STANDEY ALLOCATION

STANDEY AUTHORITY

SEC. 290. Section 4 of the Emergency Petroleum Allocation Act of 1973, as amended, is amended by adding at the end thereof, the following new subsection (f):

"(f) (1) If the President finds that there are significant quantities of alcohol suitable for use in motor fuel that are not being used for that purpose because of an unavailability of crude oil with respect to a specific refiner or unavailability of refined petroleum product with respect to persons engaged in the marketing of such refined petroleum product, then the President shall exercise the authorities granted him in paragraphs (2), (3), and (4) so as to result in the use of that alcohol in motor fuel.

"(2) Using the authorities of the mandatory allocation program under subsection (a) the President may to the extent practicable and subject to all other requirements of this Act, as amended, provide for the allocation of the maximum reasonable supply of (A) crude oil for refineries engaged in the production of gasoline or other refined petroleum products which are to be mixed with alcohol, to the extent of such production for such mixing, and (B) refined petroleum products to persons engaged in the production or marketing of such gasoline or such other refined petroleum product to the extent of such production or marketing.

"(3) In exercising the authority granted under paragraph (2) the President shall seek to avoid disruption of crude oil and refined petroleum product markets and to avoid causing unreasonable increases in the price of alcohol.

"(4) In the implementation of this subsection, due consideration shall be given to the adequacy of quality control in any refinery operations related to the receipt of an allocation under paragraph (2).

"(5) For the purposes of this subsection, 'alcohol' means methanol, ethanol, or any other alcohol which is produced from any source and which is suitable for use in combination with other fuels as a motor fuel."

TITLE III—ENERGY TARGETS

SHORT TITLE AND TABLE OF CONTENTS

SHORT TITLE

SEC. 301. (a) This title shall be known as the "Domestic Energy Policy Act of 1979".

(b) TABLE OF CONTENTS.—

Sec. 301. Short title.
 Sec. 302. Findings.
 Sec. 303. Purpose.
 Sec. 304. Definitions.
 Sec. 305. Energy Targets.
 Sec. 306. Annual Energy Report.
 Sec. 307. Consideration by Congress.
 Sec. 308. Energy Impact Reports.
 Sec. 309. Relationship to the National Environmental Policy Act.

FINDINGS

SEC. 302. Congress finds that—

(a) the United States faces an increasing shortage of petroleum;
 (b) this petroleum shortage and our increasing dependence on insecure foreign energy supplies present drastic threats to the economy and national security of the United States and its allies and to the health, safety, and welfare of its citizens;

(c) a strong national energy program is needed to meet the present and future energy needs of the Nation consistent with overall national economic, environmental, and social goals;

(d) the likelihood of development of such a program is presently substantially reduced because no comprehensive consideration of the Nation's imported and domestic energy needs and the methods of meeting those needs is required as a part of the energy policy process; and

(e) unless Congress establishes and regularly reviews and revises, as necessary, the energy targets of the Nation no definitive decisionmaking by Congress will be possible with respect to future energy consumption and supply patterns.

PURPOSE

SEC. 303. Congress declares that establishment of the Nation's future energy targets is in the public interest and will promote the general welfare by assuring coordinated development and effective administration of Federal energy policy. It is the purpose of this Title—

(a) to establish a set of energy targets for imports and domestic production for the years 1980, 1985, 1990, 1995, and 2000;

(b) to update these targets annually, taking into account changes in circumstances;

(c) to provide for a mechanism through which a coordinated national energy policy can be formulated to deal with the short-, mid-, and long-term energy problems of the Nation (including programs stimulating domestic energy production and offsetting shortages of imported energy supplies); and

(d) to require submission of a plan for the coordination and management of a balanced and comprehensive energy program, including—

(1) requirements for energy research, development, and demonstration in order to meet the energy targets established under this Title;

(2) priorities necessary to meet those requirements;

(3) programs for the development of the various forms of energy production and for energy conservation;

(4) information resulting from such programs (including information on the commercial feasibility and use of energy from fossil, nuclear, solar, geothermal, and other energy technologies); and

(5) programs to accelerate the development of hydrocarbon resources in the Western Hemisphere.

DEFINITIONS

SEC. 304. As used in this Title the term—

(1) "crude oil and NGL" includes liquid products obtained from lease operations, field facilities, and natural gas processing plants and liquid petroleum obtained from shale and tarsands;

(2) "coal" when used in connection with domestic production, includes coal which is converted to gaseous or liquid fuels;

(3) "renewables" includes energy or fuel derived directly from sunlight or from biomass, wood, or other plant or animal wastes, hydropower and geothermal sources;

(4) "end use consumption" does not include exports of fuel or electricity;

(5) "decentralized renewables" excludes the production of electricity for delivery to multiple points of end-use consumption through an electric power grid network;

(6) "conversion loss" includes heat or other forms of energy not recovered in the conversion of raw energy resources, fuels or electricity into alternate form prior to delivery for end-use consumption;

(7) "designated energy form" means one of the categories of energy production, imports, or end-use consumption for which targets are transmitted pursuant to in section 305;

(8) "technology demonstration" means a commitment by the Federal Government of funds, tax incentives, regulatory actions, or other assistance to the demonstration of a particular technique for producing, recovering, converting, or consuming energy; and

(9) "cost per barrel of crude oil equivalent" means with respect to the cost of producing energy by any technique the cost of producing 5.8 million British thermal units (Btu) of energy by such technique.

ENERGY TARGETS

SEC. 305. No later than January 31 of the first calendar year after the enactment of this Title, the President shall transmit to the Congress a set of energy targets in the following form:

ENERGY TARGETS

[Quadrillion Btu's per year]

	1980	1985	1990	1995	2000
Domestic production:					
Crude oil and NGL.....					
Natural gas.....					
Coal.....					
Nuclear.....					
Renewables.....					
Subtotal.....					
Imports:					
Crude oil and refined petroleum....					
Natural gas.....					
Coal.....					
Subtotal.....					
Total supply.....					
End-use consumption:					
Petroleum liquids.....					
Natural gas.....					
Direct coal.....					
Electricity.....					
Decentralized renewables.....					
Subtotal.....					
Conversion loss.....					
Total consumption.....					

ANNUAL ENERGY REPORT

Sec. 306. (a) The President shall submit an annual energy report prepared, to the extent practicable, pursuant to Title VIII of the Department of Energy Organization Act (42 U.S.C. 7321), to Congress no later than January 31 of each year. Such report shall contain a review of the energy targets proposed to Congress under section 305 and, beginning in the second year following enactment, a review of the targets approved by Congress and any recommendations to Congress for further revision of such targets and in addition:

(1) the actual and projected (as applicable) domestic end-use consumption, imports, and domestic production (in quadrillion Btu's), by designated energy form, for the year preceding the current year, the current year, and the year following the current year;

(2) the projected domestic end-use consumption, imports (including the proportion which is insecure, as defined by the Secretary) and domestic production (in quadrillion Btu's) by designated energy form for the years 1980, 1985, 1990, 1995, and 2000 to the extent these years are not addressed under paragraph (1);

(3) if the year previous to the current year is one for which targets are established under this Title, and if any such target is not achieved in that year, then the reasons therefor; and

(4) if the figures obtained under paragraph (1) regarding the actual domestic end-use consumption, imports, and domestic production for the year preceding the current year are significantly different from the corresponding figures that were obtained in the year two years preceding the current year as projected domestic end-use consumption, imports, and domestic production for the year preceding the current year, then the reasons therefor.

(b) The first report prepared under this section and any subsequent report (if such subsequent report contains proposed changes in any energy target) shall include a plan which shall—

(1) identify energy production, consumption, conservation, or other programs necessary to achieve the energy targets (or proposed revisions thereof) of the United States;

(2) identify the strategies that should be followed and the resources that should be committed to implement the programs under paragraph (1);

(3) describe any differences between the plan contained in such report and the most recent plan or plans developed pursuant to title VIII of the Department of Energy Organization Act (42 U.S.C. 7321); and

(4) recommend legislative and administrative actions necessary to achieve the energy targets (or proposed revisions thereof) including recommendations on taxes or tax incentives, Federal assistance, regulatory actions, antitrust policy, foreign policy, and international trade policy.

(c) The report under subsection (a) shall include—

(1) whatever data and analysis are necessary to support the objectives, resource needs, and policy recommendations contained in such plan;

(2) a summary of energy research and development efforts and energy technology demonstrations funded by the Federal Government;

(3) a review and appraisal of the adequacy and appropriateness of procedures and practices (including competitive and regulatory practices) employed by Federal, State, and local governments and nongovernmental entities to achieve the purposes of such plan; and

(4) an assessment of the cost effectiveness of each planned technology demonstration, including a summary sheet, containing at the minimum the following information:

(A) a description of the technology to be demonstrated;

(B) the cost of the technology demonstration in total, and in each year;

(C) practical limits on the amount of energy to be produced by such technology;

(D) the cost per barrel of crude oil equivalent of the energy produced by the technology demonstration and an estimate of such cost at the time when the technology is commercialized; and

(E) a brief description of special problems associated with the technology demonstration, such as environmental or transportation problems.

CONSIDERATION BY CONGRESS

Sec. 307. (a) (1) The proposed targets transmitted under section 305, the report required by section 306(a) and the plan required by section 306(b) shall be referred to the Committee on Energy and Natural Resources in the Senate and to the appropriate committee in the House of Representatives.

(2) In each subsequent year, any review and proposed revision of energy targets under section 306(a) and the plan, if any, under section 306(b) shall be referred to such committees.

(b) (1) During the first calendar year after enactment of this Title, each such committee shall review the proposed energy targets transmitted under section 305 and on or before May 15 of such year, shall report to the Senate or to the House of Representatives, as the case may be, a joint resolution establishing energy targets in the form set forth in section 305.

(2) In each subsequent year each such committee shall review established energy targets and, on or before May 15 of such year, report to the United States Senate or House of Representatives, as the case may be, a joint resolution prescribing any changes in established energy targets or reaffirming such targets.

(c) (1) Any joint resolution once introduced with respect to any matter referred to in subsection (b) shall immediately be referred to the Committee on Energy and Natural Resources or to the appropriate committee in the House of Representatives (and all resolutions in the same House with respect to the same energy targets shall be referred to the same committee) by the President of the Senate or the Speaker of the House of Representatives, as the case may be.

(2) In the case that no report is filed pursuant to subsection (b) in any year by the Committee on Energy and Natural Resources in the Senate or, in the House, by the appropriate committee of the House of Representatives, it shall be in order at any time after May 15 and before July 15 of such year to move either to discharge such a committee from further consideration of such resolution or to discharge such a committee from further consideration of any other resolution establishing, prescribing changes in or reaffirming energy targets (as the case may be) which has been referred to such committee.

(3) A motion to discharge may be made only by an individual favoring the resolution, shall be highly privileged (except that it may not be made after the committee involved has reported a resolution referred to in subsection (b)), and debate thereon shall be limited to not more than one hour, to be equally divided between those favoring and those opposing the resolution. An amendment to the motion shall not be in order, and it shall not be in order to move to reconsider the vote by which the motion was agreed to or disagreed to.

(4) If the motion to discharge has been agreed to or disagreed to, the motion may not be renewed, nor may any other motion to discharge the committee involved be made with respect to any other resolution with respect to the same matter referred to in subsection (b).

(d) (1) When the Committee on Energy and Natural Resources has reported, or has been discharged from further consideration of, any resolution with respect to a matter referred to in subsection (b), it shall at any time be in order (even though a previous motion to the same effect has been disagreed to) to move to proceed to the consideration of the resolution. The motion shall be highly privileged and shall not be debatable. And amendment to the motion shall not be in order, and it shall not be in order to move to reconsider the vote by which the motion was agreed to or disagreed to. Debate in the Senate on any such joint resolution and all amendments thereto and debatable motions and appeals in connection therewith, shall be limited to not more than twenty hours. The time shall be equally divided between, and controlled by, the majority leader and the minority leader or their designees.

(2) Debate in the Senate on any amendment shall be limited to one hour, to be equally divided between, and controlled by, the mover and the manager and debate on any amendment to an amendment, debatable motion, or appeal shall be limited to one-half hour, to be equally divided between, and controlled by, the mover and the manager except that in the event the manager is in favor of any such amendment, motion, or appeal, the time in opposition thereto shall be controlled by the minority leader or his designee. No amendment that is not germane to the provisions shall be received. Such leaders or either of them, may, from the time under their control on the passage of the joint resolution allot additional time to any Senator during the consideration of any amendment, debatable motion, or appeal.

(3) A motion to further limit debate is not debatable. A motion to recommit (except a motion to recommit with instructions to report back within a specified number of days, not to exceed three, not counting any day on which the Senate is not in session) is not in order. Debate on any such motion to recommit shall be limited to one hour, to be equally divided between, and controlled by, the mover and the manager.

Notwithstanding any other rule, an amendment, or series of amendments introduced in the Senate shall always be in order if such amendment or series of amendments proposes to change any figure or figures then contained in such joint resolution so as to make such mathematically consistent or so as to maintain such consistency.

(1) Debate in the House of Representatives on any such joint resolution shall be in order at any time after a discharge motion is approved under subsection (a) at any time after the tenth day (excluding Saturdays, Sundays, and legal holidays) following the day on which any report of the appropriate committee of the House upon any such resolution was made available to Members of the House. Any motion to proceed to the consideration of any such joint resolution shall be privileged and is not debatable. An amendment to the motion is not in order and it is not in order to move to reconsider the vote by which the motion is agreed to or disagreed to.

General debate on any joint resolution on the energy targets in the House of Representatives shall be limited to not more than twenty hours, which shall be divided equally between the majority and minority parties. A motion further to debate is not debatable. A motion to recommit the joint resolution is not in order, and it is not in order to move to reconsider the vote by which the joint resolution is agreed to or disagreed to.

Consideration of any joint resolution on the energy targets by the House of Representatives shall be in the Committee of the Whole, and the resolution shall be read for amendment under the five-minute rule in accordance with the applicable provisions of rule XXIII of the Rules of the House of Representatives. When the Committee rises and reports the resolution back to the House, the prequestion shall be considered as ordered on the resolution and any amendment thereto to final passage without intervening motion; except that it shall be in order at any time prior to final passage (notwithstanding any other rule or provision of law) to adopt an amendment (or a series of amendments) changing any figure or figures in the resolution as so reported to the extent necessary to achieve mathematical consistency.

Debate in the House of Representatives on the conference report on such resolution shall be limited to not more than five hours, which shall be divided equally between the majority and minority parties. A motion further to debate is not debatable. A motion to recommit the conference report is not in order, and it is not in order to move to reconsider the vote by which the conference report is agreed to or disagreed to.

Motions to postpone, made with respect to the consideration of any joint resolution on the energy targets and motions to proceed to the consideration of business, shall be decided without debate.

Appeals from the decisions of the Chair relating to the application of the rules of the House of Representatives to the procedure relating to any joint resolution on energy targets shall be decided without debate.

ENERGY IMPACT REPORTS

306. The President shall prepare for each bill or resolution of a public law that is reported by any Committee of the House of Representatives or Senate, or any rulemaking by any agency or executive order by the President, to be submitted to the jurisdictional Committees handling energy matters in the House and Senate:

(a) an estimate of the impact of such bill, resolution, rulemaking or order on energy targets; and
(b) such estimate shall be submitted and included in any report accompanying such bill or resolution, rulemaking or order.

RELATIONSHIP TO THE NATIONAL ENVIRONMENTAL POLICY ACT

309. Preparation and transmittal to the Congress of energy targets, under section 306(a), review and proposed revision under section 306(a) and plans under section 306(b) shall not be considered to be "a major Federal action significantly affecting the environment" within the meaning of section 102(2)(c) of the National Environmental Policy Act of 1969 (83 Stat. 85) and an environmental impact statement need not be prepared on energy targets, revisions thereon, or any plan submitted under section 306(b).

TITLE IV—ENERGY CONSERVATION**SUBTITLE A—SHORT TITLE, FINDINGS AND PURPOSES, DEFINITIONS****SHORT TITLE**

Sec. 401. (a) This Title may be cited as the "Energy Conservation Act of 1979".

(b) TABLE OF CONTENTS.—**SUBTITLE A—SHORT TITLE, FINDINGS AND PURPOSES, DEFINITIONS**

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SUBTITLE D—RESIDENTIAL ENERGY EFFICIENCY IMPROVEMENT PROGRAM

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SUBTITLE E—UTILITY PROGRAM**SUBTITLE F—ENERGY AUDITOR TRAINING AND CERTIFICATION****SUBTITLE G—AMENDMENTS TO NATIONAL ENERGY CONSERVATION POLICY ACT****SUBTITLE H—INDUSTRIAL ENERGY CONSERVATION****SUBTITLE I—RESIDENTIAL ENERGY AUDIT****FINDINGS AND PURPOSE**

Sec. 402. (a) FINDINGS.—The Congress finds (1) that the most rapid and economical method for reducing domestic dependence on insecure supplies of high-cost foreign petroleum and for extending to the maximum extent possible the available domestic reserves of nonrenewable energy resources is to increase the efficiency with which energy is used; and (2) that increased energy efficiency and reduced foreign energy dependence will have advantageous effects on employment, the economy, the environment, and the national security.

(b) PURPOSE.—It is the purpose of this Title to facilitate the efficient use of energy through the establishment of programs designed to assist and encourage residential and commercial use of energy conserving measures and devices.

DEFINITIONS

Sec. 403. For the purpose of this Title the term—

- (1) "Department" means the Department of Housing and Urban Development;
- (2) "Secretary" means the Secretary of Housing and Urban Development;
- (3) "Association" means the Government National Mortgage Association;

- (4) "applicant" means any eligible person who submits an application for a grant authorized by subtitle B or a grant authorized by subtitle C;
- (5) "eligible person" means any principal owner or lessee of a dwelling unit in a commercial building;
- (6) "dwelling unit" means any house, apartment, group of rooms or single room, occupied or intended for occupancy as separate living quarters, and located in any State;
- (7) "State" means the District of Columbia, the Commonwealth of Puerto Rico, or any State, territory or possession of the United States;
- (8) "Governor" means the chief executive officer of the State;
- (9) "residential building" means any building used as a principal residence which—
- (A) is not a new building to which final standards under section 304(a) and 305 of Public Law 94-385 apply;
 - (B) contains at least one dwelling unit; and
 - (C) has a system for heating or cooling, or both;
- (10) "commercial building" means any building other than a residential building which—
- (A) is not a new building to which final standards under section 304(a) and 305 of Public Law 94-385 apply,
 - (B) is used primarily to carry out a for-profit or nonprofit business, and
 - (C) is not used primarily for the manufacture or production of raw materials, products, or agricultural commodities;
- (11) "residential energy conservation measures" shall be defined as in section 210 (11) (A) through (G) and (I) of Public Law 95-619;
- (12) "commercial energy conservation measure" means an installation or modification of an installation in a commercial building which is primarily intended to reduce petroleum, natural gas, or electric power consumption including—
- (A) insulation of the building structure and systems within the building;
 - (B) storm windows and doors, multi-glazed windows and doors, heat absorbing or heat reflective glazed and coated windows and door systems, additional glazing, reductions in glass area, and other window and door system modifications;
 - (C) automatic energy control systems;
 - (D) equipment required to operate variable steam, hydraulic, and ventilating systems adjusted by automatic energy control systems;
 - (E) furnace or utility plant and distribution system modifications including—
 - (i) replacement burners, furnaces, boilers, or any combination thereof, which substantially increase the energy efficiency of the heating system,
 - (ii) devices for modifying flue openings which will increase the energy efficiency of the heating system, and
 - (iii) electrical or mechanical furnace ignition systems which replace standing gas pilot lights.
 - (F) caulking and weatherstripping;
 - (G) replacement or modification of lighting fixtures which replacement or modification increases the energy efficiency of the lighting system without increasing the overall illumination of a facility (unless such increase in illumination is necessary to conform to any applicable State or local building code or, if no such code applies, the increase is considered appropriate by the Secretary of Energy);
 - (H) energy recovery systems;
 - (I) cogeneration systems which produce steam or forms of energy such as heat, as well as electricity, for use primarily within such building or complex of buildings served by the furnace or utility plant and which meet such fuel efficiency requirements as the Secretary of Energy may by rule prescribe; and
 - (J) such other measures as the Secretary of Energy identifies by rule for purposes of this Title;
- (13) "energy conservation expenditure" means an expenditure made after August 1, 1979 for the design, acquisition, or installation of residential or commercial energy conservation measures, including planning and technical services for that purpose and residential or commercial energy audits;
- (14) "residential energy audit" means—
- (A) an inspection of a residential building performed under Title II of Public Law 95-619, or
 - (B) a determination of the energy consumption characteristics of a residential building which—

- (i) identifies the type, size, and rate of energy consumption of such building and the major energy using systems of such building;
 - (ii) recommends any modifications in the maintenance or operations of the building which would significantly reduce energy consumption;
 - (iii) contains information regarding energy conservation techniques which are adjustments in energy use patterns or modifications of activities and which can be employed by the customer to save energy without requiring the installation of residential energy conservation measures, and the estimated savings in energy costs likely to result from the use of such techniques;
 - (iv) recommends the installation of any residential energy conservation measures determined to be advantageous to the customer based on costs and benefits and the availability of Government assistance programs;
 - (v) informs the customers of the estimated cost of purchasing and installing the residential energy conservation measures recommended and the energy cost savings likely to result from installing these measures;
 - (vi) includes, if available, the lists described in paragraphs (2) and (3) of section 213(a) of Public Law 95-619; and
 - (vii) contains such other elements as the Secretary of Energy may, by rule, prescribe;
- (15) "commercial energy audit" means a determination of the energy consumption characteristics of a commercial building which—
- (A) identifies the type, size, and rate of energy consumption of such building and the major energy using systems of such building;
 - (B) indicates appropriate energy conservation maintenance and operating procedures; and
 - (C) indicates the need, if any, for the acquisition and installation of energy conservation measures; and
 - (D) contains such other elements as the Secretary of Energy may, by rule, prescribe;

SUBTITLE B—ENERGY CONSERVATION BANK

PURPOSE

SEC. 404. It is the purpose of this subtitle to encourage the use of energy conservation measures, and thereby lessen the Nation's dependence on foreign sources of energy supplies, by providing subsidies for below-market interest rate and graduated-payment loans made to owners and lessees of residential and commercial buildings for the purchase and installation of energy conservation measures in such buildings.

ESTABLISHMENT OF THE BANK

SEC. 405. (a) There is hereby created the Energy Conservation Bank (hereafter referred to as "the Bank") which shall be in the Association. The Bank shall have succession until September 30, 1985.

(b) The General Accounting Office shall periodically audit the financial transactions of the Bank, and, for this purpose, shall have access to all of its books, records, and accounts.

(c) The Bank may impose fees or charges for its services which shall be deposited into the miscellaneous receipts of the Treasury.

POWERS

SEC. 406. The Secretary shall have the power to fix different levels of subsidy on loans subsidized by the Bank and the interest rates paid by borrowers on such loans, but not lower than 6 percentage points below the maximum interest rate permitted on a mortgage insured under section 203(b) of the National Housing Act, and from time to time to alter the levels of subsidy and interest rates for new loans subsidized by the Bank. In doing so, the Secretary shall minimize the frequency with which the levels of subsidy and interest rates are altered and shall give consideration to such factors as the Secretary shall deem appropriate, including, but not limited to:

(a) the prevailing market rates of interest for home mortgages, home improvement loans, and commercial loans, as well as prevailing market rates of interest for Government and corporate bonds;

- (b) the availability of other Federal Government incentives and subsidies for energy conservation expenditures, including Federal income tax credits;
- (c) the prevalent repayment terms and loan amounts elected by the applicants in the program;
- (d) the costs of nonrenewable energy resources and systems;
- (e) the costs of residential and commercial energy conservation measures; and
- (f) the levels of subsidy needed to induce consumers to install such energy conservation measures in residential and commercial buildings.

SUBSIDY PAYMENTS

Sec. 407. (a) (1) The Bank shall, beginning with fiscal year 1980, make payments to financial institutions for the purpose of subsidizing below-market-rate and graduated-payment loans which are made by such institutions to owners or lessees of residential or commercial buildings for the purchase and installation of energy conservation measures in such buildings which meet the requirements of this section. The repayment schedule for such loans may be graduated as prescribed by the Secretary, subject to the limitations of paragraph (2).

(2) The amount of any payments made with respect to any loan or qualifying portion of a loan shall be a lump-sum payment and shall be in an amount necessary, as determined by the Secretary, to compensate the financial institution for the difference in yield between making such loan at an interest rate determined by the Secretary and making such loan at a market rate. The Secretary shall set the interest rate subsidy for graduated-payment loans so that the cost to the Association of providing a subsidy for a level-payment loan equals the cost to the Association of providing a subsidy for a graduated-payment loan.

(3) The Bank may, with respect to any loan for which a subsidy payment is made under this subtitle, require the financial institution to repay the Bank any amount to which the Bank is entitled as a result of the borrower's failure to meet his or her obligation under the loan.

(b) A payment may be made under this section with respect to a loan or qualifying portion of a loan only if—

(1) the term of repayment does not exceed fifteen years and is not less than three years except that the financial institution may set a shorter term of repayment at the request of the borrower if the loan or advance credit is repaid at any time before the term of repayment expires;

(2) in the case of an application for a loan to finance a residential energy construction expenditure, the financial institution makes available to the applicant, prior to making a loan commitment to the applicant, information on the availability of residential energy audits;

(3) in the case of an application for a loan to finance a commercial energy conservation expenditure, the applicant submits a copy of a commercial energy audit with the loan application;

(4) the amounts of such loans allocable to energy conservation expenditures does not exceed \$2,500 per independent dwelling unit whether detached, semi-detached or attached; \$2,000 per dwelling unit in any residential building which contains two, three, or four units; and \$50,000 per commercial building: *Provided*, That such dollar limits shall be increased 10 per centum on January 1, 1981, and on each anniversary thereafter for the duration of the program;

(5) the loan is not made to the owner of a residential building containing more than four dwelling units;

(6) the loan does not finance expenditures of a lessee for energy conservation measures for a dwelling unit in a residential building containing more than four dwelling units;

(7) in the case of financing residential energy conservation expenditures, the loan is not made to a member of a household which has an annual income greater than 815 per centum of the Lower Living Standard Income Level as defined for the area of the member's domicile by the Department of Labor in the most recent reporting period for which statistics are available;

(8) in the case of financing commercial energy conservation expenditures, the loan is not made to an applicant who conducts more than \$1,000,000 in gross annual sales;

(9) the loan does not finance expenditures of a lessee for energy conservation measures for a dwelling unit or a commercial building unless the lessee pays for the energy used to heat or cool such unit or building, and the unit or building is either separately metered for the purpose of measuring the delivery of such

energy, leased under an arrangement which requires the lessee to pay for such energy for a period of at least one year, or managed so that the lessee has been paying for such energy for at least one year;

(10) the loan does not finance expenditures for residential energy conservation measures which will not be installed by either the loan applicant or a contractor listed pursuant to the provisions of section 213(a)(2) of Public Law 95-619;

(11) the security for the loan meets requirements of the Association;

(12) the energy conservation measures to be financed will be purchased and installed after the date of enactment of this Act, except as provided in section 412; and

(13) the applicant certifies that no grant or loan has been received pursuant to the provisions of this title or section 232 of Public Law 95-619 for the expenditures for which a loan under this subtitle is sought, and that no residential tax credit has been received pursuant to section 101 of Public Law 95-618 for such expenditures, and that to the applicant's knowledge the loan will not cause the sum of all energy conservation measures paid for or subsidized pursuant to this title, to section 232 of Public Law 95-619, or to title I of Public Law 95-618 to exceed the limit established in section 407(b)(4) of this subtitle.

(c) Not less than 75 per centum of the amount of subsidy payments made under this title in any year shall be for the purpose of assisting the financing of energy conservation measures in residential structures.

TRANSFER OF PROPERTY

SEC. 408. (a) Any person who transfers a dwelling unit for which a federally subsidized energy conservation expenditures has been made for residential energy conservation measures pursuant to this title shall disclose to the purchasers in writings on or before the transfer of such dwelling unit (1) the amount of any such loan, grant or tax credit received and (2) the amount of expenditures made for such measures.

(b) Any lessee who has received a grant, loan or tax credit for energy conservation expenditures for a dwelling unit shall disclose in writing to the principal owner, or owners, before the termination of his occupancy of such dwelling unit (1) the amount of any loan, grant or tax credit received, and (2) the amount of expenditures made for such measures.

(c) The owner of any dwelling unit for which a grant or loan has been made under this title, or a tax credit claimed, shall disclose in writing to the prospective lessee prior to the execution of a lease or other occupancy agreement—

- (1) the amount of any such grant, loan or tax credit, and
- (2) the amount of expenditures made for such measures.

(d) Whoever knowingly and willfully fails to disclose information in accordance with this section shall be liable to any person entitled to such information in the amount of three times the value of the undisclosed loan, grant and tax credit benefits provided to such person under this Title. The requirements for disclosure under this section shall be limited to the duration of this program.

PENALTIES

SEC. 409. Except as provided in section 408, any person who knowingly makes any false statement or misrepresents any material fact with respect to any loan or grant under this subtitle shall be fined not more than \$10,000 or imprisoned not more than one year, or both.

REPORT

SEC. 410. The Secretary shall report to both Houses of Congress, within nine months from the date of enactment of this Act, on the market penetration of assistance provided by the Bank.

PROMOTION AND COORDINATION

SEC. 411. (a) The Secretary shall promote the program established by this subtitle by informing financial institutions and consumers of the benefits of this program and by actively seeking their participation in the program. The Secretary is authorized to use any available means of communication to accomplish the goals through the electronic media, print media, and the postal system. The

Secretary shall also assure effective coordination with State, local, regional, and Department of Energy promotion, outreach, and assistance programs.

(b) The Secretary shall require all financial institutions receiving subsidy payments from the Bank pursuant to the provision of this subtitle to make available applications for grants authorized in subtitle C of this Title, and to inform loan applicants of the availability of such grants.

RETROACTIVITY

Sec. 412. Consumers who have borrowed money from a financial institution for the purchase and installation of an energy conservation measure after August 1, 1979, shall be eligible for assistance by the Bank if the original loan is refinanced after the date of enactment of this Title.

RULES AND REGULATIONS

Sec. 413. As soon as practicable, but in no case later than six months after the date of enactment of this Title, the Secretary shall promulgate such rules and regulations as may be necessary for the operation of the program authorized by this subtitle.

ADVISORY BOARD

Sec. 414. (a) As part of the Bank, there is established an Advisory Board (hereafter referred to as the "Board") consisting of five members which shall provide advice to the Secretary for the purpose of assisting the Bank in carrying out the provisions of this part. The President shall appoint to the Board from among persons who are not officers or employees of any governmental entity or any entity engaged in the exploration, development, production or delivery of any energy resource—

(1) two members who are able to represent the views of the general public as a result of their education, training, or experience;

(2) a third member who is able to represent the views of the scientific community as a result of the member's education, training, or experience;

(3) a fourth member who is able to represent the views of the commercial building industry as a result of the member's education, training, or experience; and

(4) a fifth member who is able to represent the views of lending and financial institutions as a result of the member's education, training, or experience.

(b) If any member of the Board becomes an officer or employee of a governmental entity or an entity engaged in the exploration, development, production, or delivery of any energy resource, such person may continue as a member of the Board for not longer than the ninety-day period beginning on the date such person becomes such an officer or employee.

(c) Members appointed under subsection (a) shall be appointed for a term of five years.

(d) (1) Except as provided in paragraph (2), members of the Board shall be entitled to receive the daily equivalent of the annual rate of basic pay in effect for grade GS-15 of the General Schedule for each day (including traveltime) during which they are engaged in the actual performance of duties vested in the Board.

(2) While away from their homes or regular places of business in the performance of services for the Board, members of the Board shall be allowed travel expenses, including per diem in lieu of subsistence, in the same manner as persons employed intermittently in the Government service area allowed expenses under section 5703(b) of Title 5 of the United States Code.

(e) The Chairman of the Board shall be elected by the members of the Board.

FUNDING

Sec. 415. There are authorized to be appropriated to carry out the purposes of this subtitle, not to exceed \$150,000,000 for the fiscal year ending September 30, 1980; \$450,000,000 for the fiscal year ending September 30, 1981; \$450,000,000 for the fiscal year ending September 30, 1982; \$450,000,000 for the fiscal year ending September 30, 1983; \$450,000,000 for the fiscal year ending September 30, 1984; and \$450,000,000 for the fiscal year ending September 30, 1985.

SUBTITLE C—RESIDENTIAL ENERGY CONSERVATION GRANTS

PURPOSE

SEC. 416. It is the purpose of this subtitle to establish a Federal grant program, administered by the States, to provide funds to improve the energy efficiency of residences.

THE RESIDENTIAL ENERGY CONSERVATION OFFICE

SEC. 417. (a) The Residential Energy Conservation Office is established as an office of the Department of Energy. The Office shall function continuously pursuant to the provision of this subtitle, and shall be administered by a Director.

(b) The Director of the Office shall be appointed by the Secretary of Energy and be compensated without regard to the provisions of Title 5, United States Code, governing appointments in the competitive service, classification, and General Schedule pay rates, at a rate not in excess of the maximum rate for GS-18 of the General Schedule under section 5332 of such Title. The Director of the Office shall administer and be responsible for the discharge of the functions and duties of the Office.

(c) The Director of the Office is subject to the direction of, and shall report to, the Secretary of Energy. The Director is authorized with the concurrence of the Secretary of Energy, to enter into, without regard to section 3709 of the Revised Statutes of the United States (41 U.S.C. 5), such contracts, leases, cooperative agreements, or other transactions as may be necessary in the conduct of the functions and duties of the Office with any person including a government entity. Each department, agency, and instrumentality of the executive branch of the Federal Government and each independent regulatory agency of the United States is authorized, and shall give careful consideration to a request, to furnish to the Director of the Office, upon written request, on a reimbursable basis or otherwise, such assistance as the Director deems necessary to carry out the functions and duties of the Office. Such assistance includes transfer of personnel with their consent and without prejudice to their position and rating.

DUTIES OF THE DIRECTOR

SEC. 418. (a) The Director must notify each State as soon as practicable that it will become qualified to administer funds made available under this subtitle upon the approval by the Director of a State Supplemental Plan as described in section 419.

(b) If the Director determines that the supply or availability of insulation or other energy conservation measures or qualified labor is sufficiently limited to warrant controlling the amount of Federal expenditures made pursuant to this subtitle during any calendar year, the Director may limit the number of residential buildings to which this subtitle will apply in any calendar year by establishing a schedule which sets forth the time at which eligible persons shall be entitled as provided in a State Supplemental Plan to receive reimbursement for energy conservation expenditures: *Provided*, That any such schedule shall permit all eligible persons so entitled to receive such reimbursements no later than September 30, 1985.

(c) (1) From appropriations made to carry out the provisions of this subtitle, the Director shall disburse funds to qualified States within thirty days of the beginning of the fiscal year for which the appropriations are made, or within thirty days of the enactment of the appropriations act, whichever is later.

(2) Up to 5 per centum of such funds may be used by a qualified State for administrative expenses.

STATE SUPPLEMENTAL PLAN

SEC. 419. (a) To become a qualified State, the Governor of that State must submit and the Director must approve a State Supplemental Plan, submitted as an addendum to a State Residential Energy Conservation Plan submitted in accordance with the provisions of section 210 through 218 of Public Law 96-618.

(b) A State Supplemental Plan must include—

(1) a plan for notification of eligible persons of the availability of grants under this subtitle and loans under subtitle B for residential energy conservation expenditures;

(2) a plan for the expeditious dispersal of grants to qualified applicants;

(3) a plan for the administration of the funds made available to the State under the provisions of this subtitle;

(4) grant application requirements which shall include those listed in subsection (c); and

(5) such other information as the Director finds essential to the administration of this program.

(c) An application for a grant under this program shall include, but not be limited to—

(1) the applicant's name and address, and the address of the dwelling unit or units for which the energy conservation expenditures were made or will be made;

(2) invoices or contracts, or certified copies of such invoices or contracts, which list separately the costs of the materials and labor for which the applicant seeks reimbursement;

(3) a description of the residential energy conservation measures acquired or to be acquired and the unit prices of materials and labor for the assessment, purchase, and installation of such measures;

(4) a statement that the applicant has received information on the availability of loans under subtitle B and residential energy audits; and

(5) a document certifying that the applicant has not received a loan or grant pursuant to the provisions of this title or section 232 of Public Law 95-619 or a residential energy tax credit pursuant to section 101 of Public Law 95-618 for the residential energy conservation expenditures for which a grant under this subtitle is sought, and that to the applicant's knowledge the grant will not cause the sum of all energy conservation expenditures paid for or subsidized pursuant to this title, to section 232 of Public Law 95-619, or to section 101 of Public Law 95-618 to exceed the limit established in section 407(b)(4) of subtitle B.

(d) The Governor of a qualified State shall reimburse residential energy conservation expenditures according to the following schedule:

(1) for a principal owner of a dwelling unit:

(A) for an independent dwelling unit, whether detached, semidetached or attached, 60 per centum of the first \$250 in expenditures, 40 per centum on the second \$250 in expenditures, and 20 per centum of the third \$250 in expenditures;

(B) for a dwelling unit in a residential building which contains two, three, or four units, 60 per centum of the first \$250 in expenditures and 40 per centum of the second \$250 in expenditures; and

(C) for a dwelling unit in a residential building which contains more than four units, no reimbursement shall be allowed.

(2) for a principal lessee of a dwelling unit where the lessee pays for the energy used to heat or cool such unit, and the unit is either separately metered for the purpose of measuring the delivery of such energy, leased under an arrangement which requires the lessee to pay for such energy for a period of at least one year, or managed so that the lessee has been paying for such energy for at least one year:

(A) for an independent dwelling unit whether detached, semidetached or attached, 90 per centum of the first \$200 in expenditures, 50 per centum of the second \$200 in expenditures, and 10 per centum of the third \$200 in expenditures; and

(B) for a dwelling unit in a residential building which contains not more than eight units and not less than two units, 90 per centum of the first \$200 in expenditures, and 50 per centum of the second \$200 in expenditures;

(C) for a dwelling unit in a residential building which contains more than eight units, no reimbursement shall be allowed.

(3) for an applicant who has attained the age of sixty-five years, 150 per centum of the reimbursement otherwise specified in paragraph (1) or (2); *Provided*, That no reimbursement to such applicant shall exceed 90 per centum of the residential energy conservation expenditures for which reimbursement is allowed.

(e) The dollar limits on expenditures as provided in subsection (d) shall be increased 10 per centum on January 1, 1981, and on each anniversary thereafter for the duration of the program authorized by this subtitle.

(f) Any owner of a residential building containing not more than four dwelling units may apply for reimbursement of residential energy conservation expenditures made on such building up to the combined maximum level of grant under paragraph (d)(1) for all dwelling units for which no previous federally subsidized residential energy conservation expenditures have been made.

PROHIBITIONS

SEC. 420. (a) No grant under this subtitle may be provided for a residential energy conservation expenditure for which the certification required in section 419(c) (5) cannot be made.

(b) No grant under this subtitle may be provided for expenditures for residential energy conservation measures which are not installed by either the applicant or a contractor listed pursuant to the provisions of section 213(a) (2) of Public Law 95-619.

TAX TREATMENTS OF GRANTS

SEC. 421. All reimbursements made pursuant to this subtitle shall not be considered income under section 61 of the Internal Revenue Code.

INCOME TEST

SEC. 422. No applicant shall be reimbursed for energy conservation expenditures pursuant to this subtitle who is a member of a household which has an annual income greater than 170 per centum of the Lower Living Standard Income Level as defined for the area of the applicant's domicile by the Department of Labor in the most recent reporting period for which statistics are available.

PROMOTION AND COORDINATION

SEC. 423. (a) The Residential Energy Conservation Office shall promote the program established by this subtitle, actively seeking maximum participation of all eligible persons in the program. The Director is authorized to use any available means of communication to accomplish the goals of this part, including advertising through the electronic media, print media, and the postal system.

(b) The Director may delegate the responsibilities prescribed in paragraph (a) of this section to any qualified State. In such instance, the State may use up to 3 per centum of funds disbursed to it pursuant to section 419(c) (1) for carrying out these responsibilities, additional to the 5 per centum pursuant to section 419(c) (2).

RETROACTIVITY

SEC. 424. Residential energy conservation measures installed after August 1, 1979, and qualifying for reimbursement under the provisions of this subtitle shall be eligible for such reimbursement after the date of enactment of this Act.

RULES AND REGULATIONS

SEC. 425. As soon as practicable, but in no case later than six months after the date of enactment of this Act, the Director shall promulgate such rules and regulations as may be necessary for the operation of the program established by this subtitle.

PENALTIES AND TRANSFER OF PROPERTY

SEC. 426. (a) Any person who knowingly makes any false statement or misrepresents any material fact with respect to any grant assisted under this subtitle shall be penalized in accordance with the provisions of section 409 of subtitle B.

(b) Any owner or lessee of a dwelling unit for which a grant under this subtitle has been received shall, upon transfer of such unit, conform to the provisions of section 408 of subtitle B.

REPORT TO THE CONGRESS

SEC. 427. Twelve months following the date of enactment of this Act, and every twelve months thereafter until expiration of this subtitle, the Director shall provide a written report to Congress regarding the status of the program established by this subtitle, including the estimated amount of energy conserved as a result of this program and any recommendation for improving the program's effectiveness.

EXPIRATION

SEC. 428. The authorities under this subtitle shall expire on September 30, 1985.

FUNDING

SEC. 429. There are authorized to be appropriated to carry out the purposes of this subtitle not to exceed \$150,000,000 for the fiscal year ending September 30, 1980, \$450,000,000 for the fiscal year ending September 30, 1981, \$450,000,000 for the fiscal year ending September 30, 1982, \$450,000,000 for the fiscal year ending September 30, 1983, \$450,000,000 for the fiscal year ending September 30, 1984; and \$450,000,000 for the fiscal year ending September 30, 1985.

SUBTITLE D—RESIDENTIAL ENERGY EFFICIENCY IMPROVEMENT PROGRAM**FINDINGS**

SEC. 431. The Congress finds—

(a) that energy conservation offers the most immediate prospect for major reduction of the Nation's dependence on insecure, high-cost supplies of foreign petroleum;

(b) that an effective energy conservation program requires the cooperation of the Federal Government, State and local governments, regulated and nonregulated utilities, and public utility regulatory authorities of States and localities in the formulation and implementation of programs to increase the efficiency with which energy is used in buildings throughout the Nation.

(c) that major energy savings and reductions in foreign oil imports can be achieved through systematic programs to bring about the installation of energy conservation measures in residential buildings throughout the Nation;

(d) that the problems facing property owners and tenants in identifying and selecting appropriate energy conservation measures, the cost of such measures, and the lack of readily available, organized programs for the delivery of energy conservation services pose serious impediments to achieving major reductions in the Nation's energy consumption; and

(e) that the national interest in reducing dependence on foreign oil imports requires the implementation of such programs.

PURPOSE

SEC. 432. It is the purpose of this subtitle—

(a) to reduce the Nation's dependence on foreign oil supplies by encouraging State and local government, State regulatory authorities and public utilities to participate in the demonstration of innovative, systematic programs for the installation of energy conservation measures in all residential buildings within their respective jurisdiction or service areas;

(b) to propose for demonstration of a prototype plan under which energy conservation measures could be made available for delivery to property owners and tenants under centralized direction without charge, thereby encouraging widespread installation of residential energy conservation measures;

(c) to demonstrate such plan with a view to its implementation throughout the Nation, if determined to be economically viable and in the public interest;

(d) to increase the energy efficiency of residential buildings;

(e) to protect energy consumers against rising energy costs; and

(f) to reduce the need for the construction of new energy production and transmission facilities to meet energy demands.

SEC. 433. The National Energy Conservation Policy Act is amended by adding before section 210, a subpart heading:

"SUBPART A—UTILITY RESIDENTIAL ASSISTANCE PROGRAM",

by changing all reference to "this part" in sections 210 through 225 to "this subpart": and by adding following section 225, a new subpart, as follows:

"SUBPART B—RESIDENTIAL ENERGY EFFICIENCY PROGRAM

"SEC. 226. (a) Not later than one hundred and twenty days after the enactment of this subpart, the Secretary shall by rule establish a program to encourage State regulatory authorities, the public utilities over which they have ratemaking authority, and nonregulated utilities to undertake the demonstration of the prototype residential energy efficiency improvement plan set forth in this subpart; *Provided*, That no such demonstration project shall be implemented by the Secre-

tary unless the affected public utility agrees to such demonstration and such demonstration is approved by the State regulatory authority having rate-making authority over the affected public utility in the affected State, and by the Governor of the affected State, unless under State law the responsibility for such approval has been delegated to another agency or official.

"(b) Not later than fifteen days after the establishment of the program under subsection (a) the Secretary shall request each State regulatory authority and each public utility to consider the implementation of the prototype residential energy efficiency improvement plan set forth in this subpart. Pursuant to such request, each such authority and utility shall consider such plan and make a decision as to the feasibility of demonstrating the plan within its jurisdiction or service area. Each such regulatory authority and utility shall report its determination to the Secretary in writing within ninety days of such request, which report may include recommendations for modifications of the plan deemed necessary to make it feasible for implementation. The Secretary may upon the request of the State regulatory authority or public utility extend, for good cause, the period for submission of such report for an additional sixty days. If a regulatory authority or a utility determines that the plan is not feasible within its jurisdiction or service area, such report shall specify the reasons for the determination. Nothing in this subpart shall be construed to authorize the implementation of a project where such project has been disapproved by State law.

"(c) Each report received by the Secretary shall be reviewed promptly upon its receipt, based on such reports, and consistent with subsection (a) the Secretary shall identify and designate utility service areas or groups of contiguous service areas in which the prototype residential energy efficiency improvement plan set forth in this subpart may be demonstrated. Such areas shall be representative of the variety of climatic conditions, seasonal variations, fuel sources, building types, capacity requirements, energy measures and costs, and other factors that affect energy consumption throughout the Nation and shall take account of the varying needs for improved energy efficiency based on such variations. The Secretary may institute the plan in as many such utility service areas as he determines necessary in order to test its conservation effectiveness and economic viability. Following a reasonable demonstration period, as determined by the Secretary and subject to a determination by the Secretary that the program has resulted in significant energy savings, which determination shall be reported to both Houses of the Congress, the Secretary is authorized in his discretion to institute the program in other areas of the Nation subject to the approvals required by subsection (a) and in accordance with this subpart.

"(d) To carry out the purposes of this subpart, the Secretary is authorized to enter into such agreements as may be necessary to obtain the implementation of the residential energy efficiency improvement plan in utility service areas identified pursuant to subsection (c). Such agreements shall provide for the implementation of the plan in accordance with the requirements thereof.

"Sec. 227. The prototype residential energy efficiency improvement plan authorized by this subpart shall be as described in subsection (a) :

"(a) The plan shall—

"(1) require the Secretary to designate a Federal, State, or local government agency which shall—

"(A) negotiate a contract with an energy conservation company to undertake a home energy retrofit program as described in paragraph (2) ;

"(B) designate the geographical area in which residential buildings will be retrofitted pursuant to the contract ; and

"(C) establish with the approval of the Secretary the per unit price which the designated Government agency will pay yearly during a twenty-year contract term for a given increment of energy (electricity, natural gas or oil) actually saved as determined in accordance with paragraph (3).

"(2) require an energy conservation company, as a condition of its contract, to agree to undertake a home energy retrofit program whereby the company—

"(A) utilizes home energy retrofit experts who shall offer to conduct systematic audits of all residential buildings designated in the contract without charge to the owners or occupants thereof ;

"(B) directs the home energy retrofit expert to enter a residential building upon permission of a resident, inspect the residence, identify residential energy conservation measures or load management techniques, or both, and prescribe such measures or techniques so as to maximize the amount of energy actually saved in relation to the per unit price to be saved ;

"(C) arranges, upon obtaining permission of the owner and resident, for the supply and installation of prescribed residential energy conservation measures or load management techniques, or both, without charge to the owner or resident;

"(D) shall utilize, to the greatest possible extent, local suppliers and installers when supplying and installing prescribed measures and techniques; and

"(E) assures that such measures and techniques are properly installed and maintained during the reasonable life of the residential buildings in which such measures or techniques are installed.

"(3) require the designated Government agency to establish accurate normalized measurements, which may include a statistically reliable sample, of actual energy use by type of energy before and after the installation of prescribed retrofit measures for an area designated in the contract referred to in paragraph (1). Such measurements shall measure actual energy savings of fuel or capacity, or both, produced by an energy conservation company under the contract for a reasonable period of time (not less than three years) following installation of energy conservation measures or load management techniques, or both.

"(b) To carry out the plan, the Secretary is authorized and directed to make funds available to Government agencies designated under the plan to meet contractual obligations in whole or in part on an agreed upon basis to pay the energy conservation company for energy actually saved as determined pursuant to paragraph (3):

"(1) (A) In order to obtain funds to meet obligations under this subsection, the Secretary is authorized and directed, after consultation with the appropriate State regulatory authority, to require the affected public utilities to make periodic payments to the Secretary not to exceed the value of the savings in a given year that such utilities as a result of the energy actually saved.

"(B) For purposes of this subsection 'value of savings' shall include—

"(i) either—

"(I) the value of any savings in fuel minus any unavoidable costs;

"(II) the value of any savings in capacity minus any unavoidable costs; or

"(III) both (I) and (II).

"(ii) the selling price of conserved natural gas minus any unavoidable costs of selling the conserved natural gas or fixed charges to residential customers which would be assessed if such costs were not subtracted from the selling price.

"(C) Any payment under this subsection shall be treated as if it were a cost of service.

"(D) Notwithstanding any other provision of law, in order to maximize the value of savings, an affected public utility is authorized and directed to sell any energy available to it as a result of a home energy retrofit program authorized under this subpart at the highest price which a willing nonresidential buyer will pay for it.

"FINANCIAL ARRANGEMENTS

"Sec. 228. (a) There is hereby established in the Treasury of the United States a separate account to provide for the operation of the residential energy efficiency improvement plans authorized under section 227. There shall be covered into the account any sums received from utilities under subsection 227(b) (1) (A) and the proceeds from any obligations issued pursuant to subsection (b) of this section. The Secretary may draw on such account for the payment of any obligation incurred under any project instituted under this subpart.

"(b) If at any time the moneys in the account established under subsection (a) of this section are insufficient to enable the Secretary to meet any payment under the plan, the Secretary may issue obligations to the Secretary of the Treasury in such amounts as may be necessary therefor and as provided in Appropriation Acts, but not to exceed \$100,000,000 for the fiscal year ending September 30, 1980, and not to exceed in the aggregate \$400,000,000 for all subsequent fiscal years. Such obligations shall be in forms and denominations, bear such maturities, be subject to such terms and conditions as may be prescribed by the Secretary of the Treasury, and shall bear interest at a rate to be determined by the Secretary of the Treasury, taking into consideration the current average market yield on outstanding marketable obligations of the United States of comparable maturities during the month preceding the issuance of such obligations. The Secretary of the Treasury is authorized and directed to purchase such obligations and for such purpose is authorized to use as a public debt transaction the proceeds from the sale of any securities issued under the Second Liberty Bond

Act as amended. At any time, the Secretary of the Treasury may sell any such obligations and all sales, purchases and redemptions of such obligations by the Secretary of the Treasury shall be treated as public debt transactions of the United States.

"(c) The obligation issued by the Secretary under subsection (b) shall be repaid from moneys subsequently received by the Secretary from utilities in accordance with the plan implemented pursuant to section 228(d). To the extent that such moneys received are found to be insufficient to repay such obligations within the appropriate repayment periods, there are hereby authorized to be appropriated such amounts as may be necessary to complete repayment.

"Sec. 229. The Secretary shall not authorize the residential energy efficiency improvement plan pursuant to this subpart unless he determines that there is a reasonable likelihood that the total payments to be received from utilities under such plan and sums available under subsection 28(b) will be efficient to cover all payments required of the Secretary under such plan and to retire any obligations respecting such plan issued by the Secretary under section 228(b).

"Sec. 230. (a) Prior to instituting the plan or any demonstration thereof under this subpart, the Secretary shall publish notice of such intention in the Federal Register, including a description of such plan, and shall provide the public thirty days to submit comments thereon.

"(b) Any public utility required to make period payments pursuant to a residential energy efficiency improvement plan or any state regulatory authority with ratemaking authority over such utility may request the Secretary to adjust the amount of such payment on the basis that it exceeds the value of the savings experienced by the utility under such plan. Upon receipt of such a request, the Secretary shall determine, in accordance with section 553 of title 5, United States Code, whether and to what extent such payment shall be adjusted.

"Sec. 231. Nothing in this subpart shall be construed as restricting the authority of any officer, agency or instrumentality of the United States or of any State under any provision of law to prevent unfair methods of competition and unfair or deceptive acts or practices. Nor shall anything in this subpart be deemed to convey to any person immunity from civil or criminal liability, create defenses to actions under the antitrust laws, or modify or abridge any private right of action under such laws.

"Sec. 232. The Secretary is authorized to promulgate such rules as he determines may be necessary to carry out this subpart."

SUBTITLE E—UTILITY PROGRAM

SEC. 441. The National Energy Conservation Policy Act (Public Law 95-619) is amended—

(a) In section 215 by—

(1) striking the phrase "arrange for a lender to make" in subsection (b) (1) (C) and inserting in lieu thereof "make, or arrange for another lender to make."

(2) inserting an "and" after the semicolon following subparagraph (c) (1) (A) and striking subparagraphs (c) (1) (C) and (c) (1) (D).

(3) striking the text paragraph (c) (2) (A) and inserting in lieu thereof, "(A) Nothing in this part requires that the costs incurred by a public utility in carrying out any activity as a part of a utility program under this part (other than an activity described in section 215(c) (1) (B)) shall be recovered in a manner other than the manner specified by the State regulatory authority over such utility (or in the case of a nonregulated utility, in the manner specified by such nonregulated utility); and"

(4) striking subparagraph (c) (2) (C); and

(5) striking subsection (f) and relabeling subsection (g) as subsection (f).

(b) In section 216 by—

(1) Amending the heading to read as follows:

"SEC. 216. SUPPLY AND INSTALLATION BY UTILITIES:";

(2) amending subsection (a) to read as follows:

"(a) Except as provided in this section, no public utility may supply or install for any residential customer a residential energy conservation measure:";

(3) replacing the reference to "subsection (a) (1)" in subsection (b) with subsection (a)";

(4) amending subsection (c) to read as follows:

"(c) The prohibition contained in subsection (a) shall not apply to any measures supplied or installed by a public utility through a contract between

such utility and an independent supplier or contractor where such supplier or contractor—

"(1) is on the lists of suppliers and contractors referred to in section 213(a)(2);

"(2) is not subject to the control of the public utility, except as the performance of such contract; and

"(3) if selected by the utility, is selected in a fair, open and nondiscriminatory manner."

(5) (A) replacing the phrase "supply, installation or financing" wherever it appears in subsection (d) with the phrase "supply or installation"; and

(B) striking the phrase "or financed" in paragraph (d)(1); and

(6) striking subsection (g) and relabeling subsection (h) as subsection (g).

(c) In section 220 by adding a new subsection (e) to read as follows:

"(e) All loans and related transactions made by a public utility under this part shall be construed as an activity or business within the meaning of the Public Utility Holding Company Act (15 U.S.C. 79 a-z) which is reasonably incidental and economically necessary and appropriate to the operations of utilities and utility systems."

EFFECTIVE DATE

Sec. 442. (a) The effective date of the amendments made by this subtitle shall be the date of the enactment of this subtitle.

(b) As soon as practicable, but in no event later than one hundred and twenty days after such date of enactment, the Secretary shall promulgate rules amending the regulations under section 212 of the National Energy Conservation Policy Act reflecting the amendments made by this subtitle.

(c) The provisions of section 218 of the National Energy Conservation Policy Act shall apply with respect to temporary programs proposed under such section after the effective date of this subtitle, except after the effective date of this subtitle, except that for the purposes of such application the phrase "180 days after the promulgation of rules pursuant to section 212" shall refer to one hundred and eighty days after the promulgation of the amendments to such rules required by this section.

SUBTITLE F—ENERGY AUDITOR TRAINING AND CERTIFICATION

Sec. 451. It is the purpose of this subtitle to encourage the training and certification of qualified energy auditors for residential and commercial buildings in order to serve the Nation's various private and public needs for energy audits of residential and commercial buildings.

Sec. 452. For the purposes of this subtitle the term—

(1) "Governor" means the chief executive officer, elected or appointed, or his designee, of a State, including the Mayor of the District of Columbia.

(2) "State" means a State, the District of Columbia, Puerto Rico, the Virgin Islands, Guam, American Samoa, or the Government of the Northern Mariana Islands.

(3) "Energy audit" means an onsite inspection by a trained and certified auditor of a residential building or a commercial building to evaluate, and provide useful information on, the various energy-related aspects of the building, as appropriate. The energy audit may deal with the potential of the building for improved energy efficiency, for enhanced utilization of renewable resources, and for switching from one fuel source to another, and may include actions by the auditor to improve the energy efficiency of, or to make other energy-related improvements in, the building.

(4) "Secretary" means the Secretary of Energy.

Sec. 453. (a) The Secretary may, by rule, establish and implement a program to make grants to the Governors to support State training and certification of energy auditors, in the performance of energy audits for residential and commercial buildings.

(b) To be eligible for financial assistance under this subtitle, the Governor must submit an application to the Secretary, containing such information as the Secretary may require. Such application may be made as part of the State's Supplemental Plan submitted to the Director pursuant to section 419.

(c) The application shall also contain such assurances as the Secretary may require, including an assurance that the financial assistance provided under the subtitle will be used to supplement, and not supplant, State or local funds, and to

the extent practicable, to increase the amounts of such funds that would be made available in the absence of Federal funds for carrying out the purpose of this subtitle.

(d) The Secretary shall, subject to the availability of funds, select those applications and fund them in the amounts that the Secretary determines best carry out the purposes of this subtitle.

SEC. 454. There are hereby authorized for carrying out the provisions of this subtitle, \$10,000,000 for fiscal year 1980 and \$15,000,000 for fiscal year 1981, all such sums to remain available until expended.

SUBTITLE G—AMENDMENTS TO THE RESIDENTIAL CONSERVATION SERVICE PROGRAM

SEC. 461. The National Energy Conservation Policy Act is amended by adding at the end thereof the following new title:

"TITLE VII—ENERGY CONSERVATION FOR COMMERCIAL BUILDINGS AND FOR COMMERCIAL BUILDINGS AND MULTIFAMILY DWELLINGS

"PART I—GENERAL PROVISIONS

"DEFINITIONS

"SEC. 710. (1) The definitions of section 210 are applicable to this title, except as otherwise provided in this section.

"(2) As used in this title, the term 'public utility' means any person, State agency, or Federal agency which is engaged in the business of selling natural gas or electric energy, or both, to eligible customers.

"(3) As used in this title, the term 'building heating supplier' means any person which is engaged in the business of selling No. 2, No. 4, or No. 6 heating oil, kerosene, or propane to eligible customers.

"(4) As used in this title, the term 'commercial building' means a building which was completed on or before the date of enactment of this Act, and is used primarily for carrying out a for-profit or nonprofit business, or for carrying out the activities or administration of a State or local government, but which is not used primarily for the manufacture or production of products, raw materials, or agricultural commodities. A 'Federal building' as defined in section 521(2) is not a 'commercial building.'

"(5) As used in this title, the term 'multi-family dwelling' means a building used for residential occupancy completed on or before the date of enactment of this Act that is not a new building to which final standards under sections 304(a) and 305 of the Energy Policy and Conservation Act apply and which contains five or more dwelling units.

"(6) As used in this title, the term 'energy efficiency improvements' means any change in the operation or maintenance of a commercial building or multifamily dwelling that is primarily intended to reduce energy consumption, and which has been identified by the Secretary in the rules promulgated under section 712(a) or approved by the Secretary for consideration in the energy audits offered to eligible customers under sections 716, 717, or 718.

"(7) As used in this title, the term 'energy conservation measures' means those measures that are identified by the Secretary in the rules promulgated under section 712(a) or approved by the Secretary for consideration in the energy audits offered to eligible customers under sections 716, 717, or 718.

"(8) As used in this title, the term 'eligible customer' means, (A) with respect to a public utility, the owner, authorized representative of the owner, or tenant of a commercial building or a multifamily dwelling which uses natural gas or electric energy from that public utility and to whom a public utility sells natural gas or electricity, or (B) with respect to a building heating supplier, the owner, authorized representative of the owner, or tenant of a commercial building or a multifamily dwelling which uses heating fuel from that supplier, and to whom a building heating supplier sells No. 2, No. 4, or No. 6 heating oil, kerosene, or propane.

"(9) 'Energy audit' means an onsite inspection by a trained and certified auditor of a residential building or a commercial building to evaluate, and provide useful information on, the various energy-related aspects of the building, as appropriate. The energy audit may deal with the potential of the building for improved energy efficiency, for enhanced utilization of renewable resources, and for

switching from one fuel source to another, and may include actions by the auditor to improve the energy efficiency of, or to make other energy-related improvements in, the building.

"COVERAGE

"Sec. 711. This title shall apply in any calendar year to a public utility only if during the second preceding calendar years either—

- "(1) sales of natural gas by such public utility for purposes other than resale exceeded 10 billion cubic feet, or
- "(2) sales of electric energy by such public utility for purposes other than resale exceeded 750 million kilowatt-hours.

"RULES OF SECRETARY FOR SUBMISSION AND APPROVAL OF PLANS

"Sec. 712. (a) Within one hundred and twenty days of enactment of this Act, after consultation with the Secretary of Housing and Urban Development and the heads of such other agencies as he deems appropriate, the Secretary shall publish proposed rules on the content and implementation of State energy conservation plans for commercial buildings and multifamily dwellings which meet the requirements of this title. After publication of such proposed rules, the Secretary shall afford interested persons (including Federal and State agencies) an opportunity to present oral and written comments on such proposed rules. Rules prescribing the content and implementation of State energy conservation plans for commercial buildings and multifamily dwellings shall be published not earlier than forty-five days after publication of the proposed rules.

"(b) The rules published under subsection (a) may, (1) identify energy efficient improvements in different types of commercial buildings and multifamily dwellings by climatic regions and by categories determined by the Secretary on the basis of type of construction and any other factors which the Secretary deems appropriate, which shall be considered in the inspection offered to eligible customers under sections 716, 717, and 718 and (2) for good cause shown, exclude certain categories of commercial buildings and multifamily dwellings from coverage under this Title.

"(c) The rules published under subsection (a) shall integrate the development and implementation of State energy conservation plans for commercial buildings and multifamily dwellings to the extent practicable with the program for residential energy conservation plans under Title II, part 1 of the National Energy Conservation Policy Act. Such rules shall not have the effect of delaying the submission, approval or implementation of residential energy conservation plans under Title II, Part 1 of the National Energy Conservation Policy Act.

"(d) The Secretary may prescribe any other rules necessary to carry out the provisions of this Title.

"PART 2—ENERGY CONSERVATION PLANS

"PROCEDURES FOR SUBMISSION AND APPROVAL OF STATE ENERGY CONSERVATION PLANS FOR COMMERCIAL BUILDINGS AND MULTIFAMILY DWELLINGS

"Sec. 713. (a) Not later than one hundred and eighty days after promulgation of rules under section 712(a), the Governor of each State or any State agency specifically authorized to do so under State law, may submit to the Secretary a proposed energy conservation plan for commercial buildings and multifamily dwellings which meets the requirements of the rules promulgated under section 712. Within such one hundred eighty-day period, each nonregulated utility shall submit a proposed plan, which meets the requirements of the rules promulgated under section 712, to the Secretary unless a plan submitted under the preceding sentence for the State in which the nonregulated utility provides utility service applies to nonregulated utilities as provided in subsection (b). The Secretary may, upon request of the Governor or State agency or nonregulated utility, extend for good cause shown, the time period for submission of a plan. Each plan submitted in accordance with this subsection shall be reviewed and approved or disapproved in accordance with the procedures of section 212(c) (1) (B) and (C).

"(b) Any plan submitted by a Governor or State agency under subsection (a) may, in the discretion of the Governor, if he notifies the Secretary within thirty days after promulgation of rules under section 712(a), apply to nonregulated

utilities providing utility service in the State in the same manner as to regulated utilities. In any such case, reference elsewhere in this title to regulated utilities (including references to utilities with respect to which a State regulatory authority exercises ratemaking authority) shall, with respect to such State, be treated as references also to nonregulated utilities and references elsewhere in this title to nonregulated utilities shall not apply. For purposes of this paragraph, the term 'nonregulated utility' shall not include any public utility which is a Federal agency.

"(c) A plan applicable to building heating suppliers may be submitted by the Governor in his discretion.

"(d) In the case of the Tennessee Valley Authority or any public utility with respect to which the Tennessee Valley Authority has ratemaking authority, the authority otherwise vested in the Governor or State agency shall be vested in the Tennessee Valley Authority.

"STATE PLANS FOR REGULATED UTILITIES

"SEC. 714. No proposed energy conservation plan for commercial buildings and multifamily dwellings submitted for regulated utilities shall be approved by the Secretary unless such plan—

"(a) requires each regulated utility to implement a program which meets the requirements of section 716 and such other requirements as may be contained in the rules promulgated by the Secretary under section 712;

"(b) provides adequate State procedures for implementing and enforcing the plan;

"(c) provides procedures for insuring that effective coordination exists among various local, State, and Federal energy conserving programs within and affecting such State; and

"(d) is adopted after notice and public hearing.

"PLANS FOR NONREGULATED UTILITIES AND BUILDING HEATING SUPPLIERS

"SEC. 715. (a) No plan proposed by a non-regulated utility shall be approved by the Secretary unless such plan meets the same requirements as provided under section 714 for regulated utilities. In applying the requirements of section 714 in the case of a plan for nonregulated utilities under this section, any reference to a regulated utility shall be treated as a reference to a non-regulated utility.

"(b) No plan proposed for building heating suppliers shall be approved by the Secretary unless such plan meets the same requirements as provided under section 714 (c) and (d) and in addition—

"(1) meets the requirements of section 717 and contains adequate enforcement procedures with respect to such requirements;

"(2) meets such requirements applicable to building heating suppliers as may be contained in the rules promulgated under section 712; and

"(3) takes into account the resources of small building heating suppliers.

"PART 3—UTILITY PROGRAMS

"UTILITY PROGRAMS

"SEC. 716. (a) Each utility program shall include procedures designed to ensure that each public utility—

"(1) offers to each eligible customer, no later than twelve months after the approval of the applicable plan and every twenty-four months thereafter until 1990, an energy audit of the customer's building (either directly or through one or more inspectors under contract) to (A) identify energy efficient improvements for such building and (B) evaluate the potential need, if any, for the acquisition and installation of energy conservation measures;

"(2) maintains a report of each audit performed of a commercial building or multifamily dwelling pursuant to the offer of this subsection for not less than ten years which shall be available to any subsequent owner, owner's representative, or tenant or such commercial building or multifamily dwelling; and

"(3) shall not be required to conduct an energy audit of a building which has already been audited pursuant to this Title or Title III;

"(b) Each State regulatory authority or nonregulated utility shall, within one hundred and eighty days after promulgation of rules under section 712(a), or such longer period as the Secretary for good cause may allow, provide—

"(1) that all amounts expended or received by the utility which are attributable to the utility energy audit program (including any penalties paid by such utility under section 718) are accounted for on the books and records of the utility separately from amounts attributable to all other activities of the utility;

"(2) that all amounts expended by a utility for providing information concerning the availability of the energy audit offered pursuant to subparagraph (a) (1) are to be treated for such purposes as a current expense of providing utility service and charged to all ratepayers of such utility in the same manner as current operating expenses of providing such utility service; and

"(3) that all other amounts expended by a public utility to carry out the provisions of the Title, are, in the discretion of such State regulatory authority or nonregulated utility—

"(i) treated as current expense of providing utility service and charged to all ratepayers of such utility in the same manner as current operating expenses of providing such utility service, or

"(ii) charged to the eligible customer for whom the activity is performed.

For purposes of this subsection, the term 'ratepayer' means any person, State agency, or Federal agency who purchases electric energy or natural gas from a utility for purposes other than for resale.

"BUILDING HEATING SUPPLIER PROGRAM

"SEC. 717. (a) Each building heating supplier program shall include procedures for building heating suppliers identical to the procedures required for utilities in section 716(a) (1) through (3), except as otherwise provided by the Secretary.

"(b) A building heating supplier who wishes to participate in the program established pursuant to this section may so notify the Governor.

"PART 4—FEDERAL IMPLEMENTATION

"FEDERAL STANDBY AUTHORITY

"SEC. 718. (a) If a State does not have a plan approved under section 713 within two hundred and seventy days after promulgation of rules under section 712(a), or within such additional period as the Secretary may allow pursuant to section 713(a), or if the Secretary determines after notice and opportunity for a public hearing that an approved plan is not being adequately implemented in such State, the Secretary shall—

"(1) promulgate a plan which meets the requirements of section 714, and

"(2) under such plan, by order, require each regulated utility in the State to offer, no later than ninety days following the date of issuance of such order, to its eligible customers a utility energy audit program prescribed in such order which meets the requirements specified in section 716.

"(b) If a nonregulated utility which is not covered by an approved State plan under section 713 does not have a plan approved under section 713 within two hundred and seventy days after promulgation of rules under section 712(a) or within such additional period as the Secretary may allow pursuant to section 713(a), or if the Secretary determines that such nonregulated utility has not adequately implemented an approved plan, the Secretary shall, by order—

"(1) promulgate a plan which meets the requirements of section 715 and which applies to the buildings which would have been covered had such a plan been so approved or implemented, and

"(2) require such nonregulated utility, under such plan, to offer, not later than ninety days following the date of issuance of such order, to its customers a utility program prescribed in such plan which meets the requirements specified in section 716.

"(c) If the Secretary determines that any person has violated any provision of this title, any plan approved or promulgated under this title, or any order issued pursuant thereto, he may file a petition in the appropriate United States district court to enjoin such person from violating such provision, plan, or order. The provisions of section 219 (c) and (d) apply for any violation of any order or plan promulgated by the Secretary under authority of subsections (a) and (b) of this section."

SEC. 462. The table of contents of the National Energy Conservation Policy Act is amended to add a new title VII to read as follows:

**"TITLE VII—ENERGY CONSERVATION FOR COMMERCIAL BUILDINGS AND
MULTIFAMILY DWELLINGS**

"PART 1—GENERAL PROVISIONS

"Sec. 710. Definitions.

"Sec. 711. Coverage.

"Sec. 712. Rules of Secretary for submission and approval of plans.

"PART 2—ENERGY CONSERVATION PLANS

"Sec. 713. Procedures for submission and approval of State energy conservation plans for commercial buildings and multifamily dwellings.

"Sec. 714. State plans for nonregulated utilities.

"Sec. 715. Plans for nonregulated utilities and building heating suppliers.

"PART 3—UTILITY PROGRAMS

"Sec. 716. Utility programs.

"Sec. 717. Building heating supplier program.

"PART 4—FEDERAL IMPLEMENTATION

"Sec. 718. Federal standby authority."

SUBTITLE H—INDUSTRIAL ENERGY CONSERVATION

SEC. 471. There are hereby authorized to be appropriated to the Secretary of Energy to accelerate research, development, and demonstration of energy productivity in industry not to exceed \$40,000,000 for each of fiscal years 1980, 1981, and 1982 in addition to such funds as have been authorized for this activity in other measures.

SUBTITLE I—RESIDENTIAL ENERGY AUDIT

SEC. 481. Part I of Title II of the National Energy Conservation Policy Act is amended by adding at the end thereof the following new section :

"RESIDENTIAL ENERGY AUDITS

"SEC. 233. (a) Any financial institution, the deposits of which are insured by an agency of the Federal Government, may not provide financing for the purchase of a residential building that is served by a public utility offering a utility program or participating home heating supplier to the residential customer who owns or occupies that residential building, unless,

"(1) a copy of the energy audit report prepared under section 215(b) (1) (A) or section 217(a) (2) (A) within the last five years is made available to the purchaser;

"(2) the purchaser posts with the financial institution a \$50 bond, including a cash bond, that is refundable at such time as the purchaser obtains the energy audit report under section 215(b) (1) (A) or section 217(a) (2) (A), or

"(3) the requirements of this subsection are inapplicable to the purchase under regulations prescribed pursuant to (b).

"(b) The Secretary may by rule establish exemptions to the requirements of subsections (a) where—

"(1) the residential customer who owns, occupies, or purchases the residential building has made a good faith effort to obtain the report described in section 215(b) (1) (A) or section 217(a) (2) (A), but was unable to obtain such report because of inaction by the public utility or participating home heating supplier serving that residential building, or

"(2) the residential building is located in (A) a geographic region which the Secretary has determined by rule to be a region in which application of this section would not likely lead to significant energy savings, or (B) the State of Hawaii.

"(c) The provisions of this section become effective with respect of purchases made after January 1, 1981, but these provisions shall no longer apply after January 1, 1986.

"(d) Failure to comply with any requirement of this subtitle shall not result in the invalidation or revocation in whole or in part of any purchase, financing or transfer of title of a residential building subject to this subtitle."

TITLE V—GEOTHERMAL ENERGY

SHORT TITLE

SEC. 501 (a) This Title may be cited as the "Geothermal Energy Act of 1979".

(b) TABLE OF CONTENTS—

Sec. 501. Short Title.

SUBTITLE A

- Sec. 511. Loans for Geothermal Reservoir Confirmation.
- Sec. 512. Loan Size Limitation.
- Sec. 513. Loan Rate and Repayment.
- Sec. 514. Program Termination.
- Sec. 515. Regulations.
- Sec. 516. Authorizations.

SUBTITLE B

- Sec. 521. Reservoir Insurance Program.

SUBTITLE C

- Sec. 531. Feasibility Study Loan Program.

SUBTITLE D

- Sec. 541.

SUBTITLE A

LOANS FOR GEOTHERMAL RESERVOIR CONFIRMATION

SEC. 511. (a) The Secretary of Energy (hereinafter referred to as the Secretary) is authorized to make a loan from funds available in the Geothermal Resources Development Fund established under Public Law 93-410 to any municipality, electric cooperative, industrial development agency, nonprofit organization, or person for the purpose of exploring for or confirming the economic viability of a geothermal energy reservoir.

(b) Any such loan shall be repayable out of revenue from production of the geothermal energy reservoir for whose confirmation the well is drilled, at a rate not to exceed 20 percent of the annual gross revenue from the reservoir, except that if any disposition of the geothermal rights to that reservoir is made by the borrower, the full amount of the loan balance outstanding or the full amount of compensation received, whichever is less, shall be paid immediately. If the reservoir is confirmed, the Secretary may impute a reasonable revenue for purposes of determining repayment (1) if reasonable efforts are not made to put such reservoir in commercial operation, (2) if the borrower or other person utilizes the resources without sale of energy, or (3) if a sale of energy resources is made for an unreasonably low price. No such imputation of revenue shall be made for a period of three years following reservoir confirmation. In the event of failure to begin production of revenue within five years of drilling (or in the case where no sale of energy is made, the production of energy for commercial use), the Secretary may take action to receive the value, not to exceed the balance due, of any assets of the project in question, including resource rights.

(c) The Secretary may cancel the unpaid balance and any accrued interest on any loan granted if he determines on the basis of evidence presented by the loan recipient that the geothermal energy reservoir, with regard to which the loan was made, contains insufficient heat energy or has other characteristics which make that reservoir economically or technically unacceptable for commercial development.

LOAN SIZE LIMITATION

SEC. 512. The amount of any loan shall not exceed 50 percent of the cost of a project consisting of surface exploration and drilling of one or more exploratory wells, except that the loan is to a person, municipality, non-profit organization, corporation, or Indian tribe proposing to make application of the resource of space heating or cooling or process heat for one or more structures or facilities existing or under construction, the amount may be 90 percent of project costs. No loan shall be made in excess of \$3,000,000.

LOAN RATE REPAYMENT

SEC. 513. (a) Each loan made pursuant to section 511 shall bear interest at the discount or interest rate used at the time the loan is made for water resources planning projects under section 80 of the Water Resources Development Act of 1974 (41 U.S.C. 1962(d)-17(a)).

(b) Each loan shall be for a term which the Secretary deems appropriate, but no loan term shall exceed twenty years beyond the date production begins. If revenues are inadequate to fully repay the principal and accrued interest within twenty years after production begins, any remaining unpaid amounts shall be forgiven.

PROGRAM TERMINATION

SEC. 514. No new loans shall be made under this authority after September 30, 1986. Amounts repaid prior to September 30, 1986 on loans made pursuant to section 511 shall be deposited into the Geothermal Resources Development Fund. Amounts repaid after that date and amounts remaining in the fund on or after that date and not required to secure outstanding obligations shall be deposited into the United States Treasury as miscellaneous receipts.

REGULATIONS

SEC. 515. All regulations made with respect to this title shall be promulgated no later than one year after the date of enactment of this title.

AUTHORIZATIONS

SEC. 516. There are hereby authorized to be appropriated for each of the five fiscal years beginning with fiscal year 1981, not to exceed \$150,000,000 for loans to be made pursuant to section 511. Amounts appropriated shall be deposited in the Geothermal Resources Development Fund and shall remain available until expended.

SUBTITLE B

RESERVOIR INSURANCE PROGRAM

SEC. 521. (a) The Secretary of Energy is authorized and directed to establish and implement within six months of the enactment of this title a program, in cooperation with the insurance and reinsurance industry, to provide reservoir insurance to any qualified eligible applicant.

(b) For the purpose of this section, the term—

(1) "investment" means the expenditure of, and any irrevocable legal obligation to expend, funds (together with the reasonable interest costs thereof) for the purchase of construction of machinery, equipment, and facilities manufactured, or for services contracted to be furnished, for the development and utilization of a geothermal resource in the United States to provide energy in the form of heat for direct use or for generation of electricity;

(2) "geothermal resource" means a resource in the United States including: (A) all products of geothermal processes embracing indigenous steam, hot water, and hot brines; (B) steam and other gases, hot water and hot brines resulting from water, gas, or other fluids artificially introduced into geothermal formations; (C) heat or other associated energy found in geothermal formations; and (D) any byproducts derived from them, where "byproduct" means any mineral or minerals (exclusive of oil, hydrocarbon gas and helium) which are found in solution or in association with other geothermal resources and which have a value of less than 75 per centum of the value of the geothermal steam or are not, because of quantity, quality, or technical difficulties in extraction and production, of sufficient value to warrant extraction and production by themselves;

(3) "risk" means the hazard that a reservoir of geothermal resources will cease to provide sufficient quantities of geothermal resources at minimum conditions required to maintain an economically or technically viable operation for utilization of the geothermal resource;

(4) "reasonable premiums" means premium amounts determined by the Secretary to be reasonable in light of the amount of investment subject to the risk and premiums charged in similar or analogous situations by private insurers where private insurance is concerned and by insurers or guarantors, both public and private, where public insurance is concerned;

(5) "other insurance" means any combination of private or public insurance other than investment insurance provided by the Secretary under this section;

(6) "reservoir" means the physical subsurface geologic structure which form the natural repository for the undisturbed geothermal resource;

(7) "person" means any public or private agency, institution, association, partnership, corporation, political subdivision, or other legal entity, where any such entity is a United States citizen, as determined by application of the test for United States citizenship contained in section 802 of Title 46, United States Code.

(c) Any person with a total direct investment of not less than \$1,000,000 in the development and use, not including exploration and testing, of a geothermal resource associated with a reservoir, and unable to obtain other insurance at

reasonable premiums for the amount of his investment subject to risk, as determined by the Secretary under this section, shall be eligible for investment insurance.

(d) Any eligible person seeking investment insurance under this section shall file an application with the Secretary setting forth: (1) the total amount of the contemplated investment in a geothermal resource and associated reservoir; (2) the views of the applicant concerning the nature and extent of the risk, including a geologic, engineering, and financial assessment based on site specific results of exploration and testing of the geothermal resource and the reservoir as specific as is possible; (3) the status of all required Federal, State, and local approvals, permits, and leases for the proposed development and utilization operations at the site; and (4) the extent to which the applicant has been able to obtain other insurance against the risk; and such other information as the Secretary may require.

(e) Unless the Secretary determines the risk proposed by the applicant is unreasonable, the Secretary, within ninety days of receipt of a satisfactory application, shall determine in writing and submit to the applicant: (1) the risk which may cause loss of investment for the applicant; (2) the total investment subject to the risk; (3) the amount of the other insurance which is available at reasonable premiums for the purpose of indemnifying the applicant against the risk; (4) the amount of investment insurance available pursuant to this section, which shall be the difference between the total investment subject to the risk and the total other insurance determined to be available at reasonable premiums, but not in excess of 90 per centum of, or \$50,000,000 of, whichever is the lesser, the loss of investment subject to the risk; and (5) any reasonable terms and conditions necessary for the prudent administration of the program, including reasonable premiums for the insurance pursuant to this section (which shall be deposited in the Geothermal Resources Development Fund).

(f) The Secretary, within ninety days of the determinations under subsection (e), and upon agreement of the applicant to the determinations, shall issue a certificate of insurance, which shall not be transferable without the express approval of the Secretary for good cause shown, with any specified terms and conditions and shall execute a contract with the applicant setting forth the terms and conditions of the investment insurance, and such other provisions as may be necessary to protect the interests of the United States, including ownership, use, and disposition of any currency, credits, assets, or investments on account of which payment under such insurance is to be made, and any right, title, claim, or course of action existing in relation thereof.

(g) Any holder of a certificate of insurance pursuant to subsection (f) who claims a loss of values of his investment by reason of the risk shall receive compensation to the extent the Secretary determines that: (1) such holder is eligible to receive compensation pursuant to the certificate and the contract; and (2) the amount and loss incurred by the holder which is subject to insurance and for which the holder has not received and will not receive compensation from other insurance.

(h) Any compensation received by the holder shall be withdrawn from the Geothermal Resources Development Fund. The full faith and credit of the United States is hereby pledged to the payment of any compensation under this section.

(i) A person shall not be denied insurance pursuant to this section, solely because such person is the recipient of any other Federal assistance under this Act, or any other Act.

(j) There are hereby authorized to be appropriated to the Geothermal Resources Development Fund, established pursuant to the Geothermal Energy Research, Development and Demonstration Act of 1974 (30 U.S.C. 1144), as amended, an amount not to exceed \$100,000,000, for fiscal year 1980 which shall be available until expended.

(k) The Secretary may also enter into agreements to reinsure any private insurer for any risk associated with insurance for development and utilization of a geothermal resource and associated reservoir, using the procedures of subsections (c) through (i), as he deems appropriate to provide an incentive for the participation of the private insurance industry in geothermal development. The Secretary also is authorized and directed to use any other available authority to obtain such greater participation of the private insurance industry. The Secretary shall submit a report to the Congress within one year of the enactment of this section on the need for any additional authorities to obtain such participation.

SUBTITLE C

FEASIBILITY STUDY LOAN PROGRAM

Sec. 531. (a) The Secretary of Energy is authorized and directed to establish a program of assistance for the accelerated development of geothermal resources for nonelectric applications by geothermal utility districts, geothermal industrial development districts and projects, and other persons.

(b) The Secretary is authorized to make a loan to any qualified applicant, pursuant to subsection (a), to defray the costs of up to 90 per centum for (1) studies to determine the feasibility of such geothermal development pursuant to subsection (a) and (2) preparing any application for any necessary license or other Federal State, and local approvals respecting such development. The Secretary may cancel the unpaid balance and any accrued interest on any loan granted pursuant to this subsection if he determines on the basis of the study, that such development is not technically or economically feasible.

(c) The Secretary is authorized to make a loan to any qualified applicant, pursuant to subsection (a), to defray the costs of up to 75 per centum of the costs directly related to the construction of systems for nonelectric geothermal development pursuant to subsection (a), where the Secretary finds—

(1) all necessary licenses and other required Federal, State, and local approvals for construction of systems have or will be issued,

(2) the project will have no significant adverse impact on the environment, and

(3) the applicant requires such assistance for the project.

(d) Each loan made pursuant to this section shall bear interest at the discount or interest rate used at the time the loan is made for water resources planning projects under section 80 of the Water Resources Development Act of 1974 (41 U.S.C. 1962(d)—17(a)). Each loan shall be for such term, as the Secretary deems appropriate, but not in excess of ten years for loans under subsection (b) and thirty years for loans under subsection (c).

(e) Amounts repaid on loans made pursuant to this section shall be deposited in the Geothermal Resources Development Fund. Loans pursuant to this section shall be funded by the Geothermal Resources Development Fund. There are hereby authorized to be appropriated to the Geothermal Resources Development Fund, for the purposes of this section, \$50,000,000 in fiscal year 1980, which shall remain available until expended.

SUBTITLE D

Sec. 541. Title II of the Geothermal Research, Development, and Demonstration Act of 1974 (30 U.S.C. 1101, et seq.), as amended, hereafter in this Title referred to as "the Act", is amended—

(a) by adding at the end of section 201(c) (30 U.S.C. 1141(c)) "except that any guarantee made for a loan to an electric, housing or other cooperative, or to a municipality as defined in section 3(7), part I, of the Federal Power Act, may apply to so much of the principal amount as does not exceed 90 percent of the aggregate costs of the project."

Sec. 542. Section 1143 of the Act is amended by striking "1974" and insert in lieu thereof "1979".

Sec. 543. The Administrator of the Small Business Administration, the Administrator of the Rural Electric Administration, the Administrator of the Farmers Home Administration, and the Secretary of Housing and Urban Development may, with the express approval of the Secretary of Energy, utilize funds in the Geothermal Resources Development Fund established by section 1144 of the Geothermal Energy Research, Development and Demonstration Act of 1974 (30 U.S.C. 1101, et seq.), as amended, and the procedures of subsection 1144(c), for the purpose of providing loan or loan guarantee assistance, consistent with the objectives of that Act, for geothermal energy development and directly related activity, by means of loan and loan guarantee programs otherwise authorized by law in such agencies and departments. Such assistance shall be in full conformance with any requirements or limitations in such laws authorizing such assistance. The total amount of all such assistance using the Geothermal Resources Development Fund shall not exceed \$50,000,000 of the total amount of funds available in the fund in any fiscal year.

Sec. 544. The Act is further amended by adding new section 1146, as follows:

"Sec. 1146. The Secretary shall ensure, to the maximum extent possible, that any action associated with a loan guarantee under this chapter, which is pursuant

to section 102(c) of the National Environmental Policy Act, takes the maximum cognizance allowable under law of any action associated with the project, which is the subject of the loan guaranty. No such action associated with the loan guaranty shall duplicate any such action associated with such project."

Sec. 545. (a) The Act is further amended by adding new section 1147, as follows:

"Sec. 1147. (a) The Secretary of Energy within sixty days after enactment of this section shall establish and implement orderly and expeditious procedures for the processing of loan guarantee applications pursuant to subchapter II of this Act. The procedures shall require that all such applications shall be approved or disapproved within four months of the date of filing. Such procedures shall include, at a minimum, explicit direction on the handling of such applications, express deadlines for the solicitation and collection of views of the consulted officials in the Department of Energy and in any other appropriate Department or agency (with identified officials responsible for meeting such deadlines), a Department of Energy coordinating authority to monitor the processing of such applications, predetermined procedures for expeditious handling on intradepartment and interagency disagreements and appeals to higher authorities, and similar administrative mechanisms. To the maximum extent practical, an applicant should be advised of all information required of the applicant for the entire process for every departmental element and agency's needs at the beginning of the process.

Potential controversial applications should be identified as quickly as possible so that any required policy decisions or consultations can be initiated in a timely manner. An immediate effort should be undertaken to establish quickly any necessary standards and criteria, including the nature of any required assurances, certifications, or evidentiary showing, for the decisions required by this section. The processing of any application proposed and filed as of the date of enactment of this section shall not be delayed pending the implementation of these procedures. Any such application, however, shall be subject to final approval or disapproval in not more than four months after such enactment.

"(b) The Secretary of Energy shall include in the procedures required by subsection (a) expedited consideration of loan guarantees for nonelectric applications of geothermal energy, generally, and specifically for non-electric applications by municipal utilities, geothermal utility districts, geothermal industrial development districts, rural cooperatives, and other such public entities seeking to develop geothermal energy for community, rural, and local industrial applications."

Sec. 546. (a) The Secretary of Energy shall initiate immediately a full and complete review of all relevant considerations associated with the significantly accelerated development of geopressures methane in the United States and on the Outer Continental Shelf, with emphasis on legal, institutional, and regulatory barriers to such development. The review also shall address the current status of technology development to support such accelerated development, and shall consider the earliest opportunities for demonstration efforts. The review shall be coordinated with the Interagency Geothermal Coordinating Committee. The Secretary shall submit a report to the Congress, within six months of the enactment of this section with appropriate recommendations for any administrative or legislative actions necessary to support such accelerated development of geopressures methane.

(b) The Secretary of Energy and the Secretary of the Interior shall initiate immediately a full and complete review of all relevant considerations associated with the significantly accelerated development of the potential of hot dry rock systems in the United States, with primary emphasis on the status of technology development to support such accelerated development. The review also shall address the earliest opportunities for demonstration projects, specifically including such projects at facilities and installations of the Federal Government. The review additionally shall consider any legal, institutional, or regulatory barriers to such development. The review shall be coordinated with the Interagency Geothermal Coordinating Committee. The Secretary shall submit a report to the Congress, within six months of the enactment of this section, with appropriate recommendations for any administrative or legislative action necessary to support such accelerated development of hot dry rock systems.

(c) The Secretary of Energy, in coordination with the Interagency Geothermal Coordinating Committee, and with the Administrator of the Environmental Protection Agency, shall immediately conduct a full and complete review of the need for environmental control technology, generic or specialized for a par-

ticular form of geothermal energy, to support, pursuant to all applicable Federal environmental laws, the significantly accelerated development of all forms of geothermal energy. The review shall also include the adequacy of the Department of Energy's environmental control technology development program for geothermal energy. The Secretary shall submit a report on the review to the Congress, within six months of the enactment of this section, with appropriate recommendations for any administrative or legislative actions necessary to support such accelerated development of all forms of geothermal energy in the United States.

Sec. 547. The Secretary of Energy is authorized and directed to initiate a new program for utilization of geothermal energy in Federal buildings, Federal facilities, and Federal installations in the United States. The program shall, to the maximum extent feasible, be developed in full coordination with the existing programs for solar utilization and energy conservation in Federal buildings and installations. The Secretary is authorized to cost share with any other Federal agency or department the incremental increase in retrofit or new construction costs resulting from initial capitalization of any such geothermal system in a Federal building, facility, or installation, to the extent the Secretary deems appropriate to provide a further incentive for geothermal development in a given geographical area or on a nationwide basis. The Secretary also shall direct each power marketing administration in the Department of Energy to consider affirmatively the development and use of geothermal energy in its system. The option of use of geothermal energy shall be considered fully in any new Federal building facility, or installation in geothermal resource areas designated by the Secretary of Energy.

Sec. 548. The Public Utility Regulatory Policies Act of 1978, Public Law 95-617, is amended, as follows:

(a) Section 201 is amended by inserting "geothermal resources" after "renewable resources" in the definition of "small power production facility" in subsection (17) (A) (1) of section 3 of the Federal Power Act.

(b) Section 202 is amended by inserting "geothermal power producers, including nonutility producers" after "any" in the phrase, "Upon application of any" at the beginning of subsection (a) (1) of section 210 of the Federal Power Act.

(c) Section 203 is amended by inserting "geothermal power producers, including nonutility producers," after "Any" at the beginning of subsection (a) of section 211 of the Federal Power Act.

(d) Section 210 is amended by—

(1) inserting "geothermal power producers of not more than 80 MWe capacity (except for not more than one project to be designated by the Secretary of Energy of a maximum of 200 MWe capacity)," after "encourage" in the phrase "necessary to encourage" at the beginning of subsection 210(a), and

(2) inserting "geothermal power producers of not more than 80 MWe capacity (except for not more than one project to be designated by the Secretary of Energy of a maximum of 200 MWe capacity)," after "which" in the phrase "prescribe rules under which" in subsection 210(e) (1).

TITLE VI—RENEWABLE ENERGY INITIATIVES

SHORT TITLE

Sec. 601. (a) This Title may be cited as the "Omnibus Solar Commercialization Act of 1979".

(b) TABLE OF CONTENTS—

- Sec. 601. Short title.
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- Sec. 610. Authorization of Appropriations.

FINDINGS

Sec. 602. The Congress finds and declares that—

(a) the United States faces an energy shortage arising from decreasing supplies of domestic petroleum and insufficient development of renewable energy resources;

(b) unless effective measures are promptly taken by the Federal Government and other users of energy to increase the rate of use of renewable energy resources, the United States will become increasingly dependent on the world oil market, increasingly vulnerable to interruptions of foreign oil supplies and unable to provide the energy to meet future needs;

(c) the Federal Government can promote the commercialization of solar energy systems by installing cost effective solar energy systems in Federal buildings; and

(d) the formal establishment of a coordinated network for the dissemination of information to the public is a prerequisite to the development of an improved public understanding of the potential of solar energy systems.

PURPOSE

SEC. 603. The purpose of this Title is to establish incentives for the use of renewable energy resources, to coordinate information dissemination and outreach programs and to promote the use of renewable energy resources, to require the use of certain cost effective solar energy systems by the Federal Government, and to establish a program for the promotion of local energy self-sufficiency.

DEFINITIONS

SEC. 604. For the purposes of this Title—

(1) the term "Secretary" means the "Secretary of the Department of Energy";

(2) the term "renewable energy resource" means any energy resource which has recently originated in the Sun, including direct and indirect solar radiation and intermediate solar energy forms such as wind, ocean thermal gradients, ocean currents and waves, hydropower, photovoltaic energy, products of photosynthetic processes, organic wastes, and others;

(3) the term "solar energy systems" means any system or collection of systems which provides useful energy from renewable energy resource(s) and which is in conformity with such criteria and standards as shall be prescribed by the Secretary;

(4) the term "active solar energy system" means any system which employs the energy of the Sun directly to produce electrical, mechanical or thermal energy to heat or cool buildings; or to heat hot water; or to provide other services; and which relies principally for energy transfer and any electrical or mechanical device or combination of devices such as collector, pumps, or sensing devices;

(5) the terms "Federal building" and "Federal agency" have the meaning provided by Public Law 94-385, section 303; and

(6) the term "passive solar energy system" means a space heating, heating and cooling, or hot water heating system which is characterized by reliance principally on natural convection, conduction and radiation for heat transfer, and which collects and stores thermal energy from the Sun by devices that are structurally integrated with occupied space such as a storage wall, a storage roof, greenhouse, an atrium or sunspace, reflector assemblies, shading devices, or effective surfaces or glazings.

INFORMATION DISSEMINATION AND OUTREACH SERVICES

SEC. 605. (a) It shall be the policy of the Secretary to support the development of a coordinated network to—

(1) collect, review, process, and disseminate information and data; and

(2) provide educational, training, and related outreach services designed to actively promote the development, commercialization, and use of solar energy systems and related energy efficient systems.

(b) It shall further be the policy of the Secretary to insure that the coordinated network makes appropriate use of organizational components at the national, regional, State, and local levels, to insure that potential users of these services can receive accurate information, in a timely fashion, and at a level of detail that is appropriate to their particular needs.

(c) (1) The Secretary shall establish a National Solar Energy Information Center (hereafter referred to as the "Center") for the purpose of providing information and referral services to the general public, and private sector, government organizations and the various organizations participating in the coordinated network referred to in subsection (a).

(2) The Center's informational referral services shall be designed to support and complement the related informational, educational, training, and other

outreach services developed and performed by the Department of Energy, the Department of Housing and Urban Development, and other Federal agencies, the Solar Energy Research Institute, the Technical Information Center, the Regional Solar Energy Centers, the Energy Extension Service, State, and local offices, libraries, educational institutions, and other organizations involved in the outreach activities identified in subsection (a).

(3) The services provided by the Center shall include—

(A) the retrieval and dissemination of information relating to the development, commercialization, and use of solar energy systems and energy efficient systems that are integral to solar energy applications, including a national toll-free telephone number and a mailing address to receive inquiries, and a publications distribution service to provide pertinent and timely responses to these inquiries;

(B) a national energy information referral service to link information inquiries with the specific organizations and resources that can best followup on each inquirer's particular needs; and

(C) other outreach and support activities as prescribed by the Secretary.

(d) The Secretary shall consult with the Secretary of the Department of Housing and Urban Development on matters relating to the programs and services provided by the National Solar Energy Information Center.

(e) (1) The Secretary shall provide for the development and dissemination of timely and accurate publications and other informational materials designed to promote the development, commercialization, and use of solar energy systems and energy efficient systems that are integral to solar energy applications. These publications and materials should be tailored to meet the specific needs of—

(A) researchers and designers,

(B) manufacturers,

(C) engineers, architects, builders, and contractors, installers,

(D) the financial community,

(T) the insurance community,

(F) the legal community,

(G) auditors who assess the solar energy or energy efficiency potential of facilities,

(H) building appraisers and inspectors.

(I) Government officials,

(J) trade and professional organizations,

(K) industry,

(L) consumers, and

(M) others who are involved in the development, commercialization, or use of solar energy systems and energy efficient systems that are integral to solar energy applications.

(2) The Secretary shall further provide for the development and implementation of conferences, workshops, training sessions, and other outreach programs, designed to promote the development, commercialization, and use of solar energy systems and energy efficient systems that are integral to solar energy applications.

(f) (1) The Secretary shall assign to an appropriate element in the Department of Energy the principal responsibility for the development of publications and other informational materials identified in paragraph (e) (1). These materials may be disseminated to the appropriate target audiences by the National Solar Energy Information Center, the regional solar energy centers, and the other appropriate organizations participating in the outreach network identified in subsection (a). The activities under this subsection shall be performed under the direction of the Secretary.

(2) The Secretary shall also assign to an appropriate organizations, upon request, in Energy the responsibility of providing support services to assist the regional solar energy centers, the Energy Extension Service, State and local energy offices, and other appropriate organization, upon request, in the development and implementation of conferences, workshops, training sessions, and other outreach programs referred to in paragraph (e) (2).

(g) The Secretary shall coordinate the information activities, and other outreach services performed by the Solar Energy Information Center, the Solar Energy Research Institute, the regional solar energy centers, the Energy Extension Service, and other organizations funded by the Department of Energy that provide services referred to in this subsection.

(h) In implementing the policy and requirements of this section, the Secretary shall give due consideration to an orderly transition from requirements under existing law. Activities pursuant to the section shall incorporate all requirements

of and be deemed to satisfy information dissemination provision in Public Law 93-409, Public Law 93-473, Public Law 93-577 as amended, and Public Law 95-590.

(1) The Secretary shall provide Congress and the appropriate authorizing committees with an annual report on the programs and activities established in this section, by January 15, of each year following the date of enactment of this title. The report shall include but not limited to—

(1) an assessment of the performance of the overall outreach network identified in subsection (a) and of the network's individual organizational components funded by the Department of Energy; and

(2) recommendations for modifications in the structuring of the outreach network.

ENERGY INITIATIVES IN NEW AND RENOVATED FEDERAL BUILDINGS

SEC. 606. (a) Effective one hundred and eighty days after the date of enactment of this title, the head of each Federal agency responsible for the construction of any new civilian Federal building or for the leasing of new structures constructed wholly for use by the Federal Government or the substantial renovation or reconstruction of existing Federal civilian buildings shall require to the maximum extent practicable, inclusion of, or the use of, cost-effective solar energy systems.

(b) For the purposes of this section, a solar energy system shall be considered cost-effective if the sum of all capital and operating expenses associated with the system, with future costs being appropriately discounted over the expected life of the system or during a period of thirty years, whichever is shorter, does not exceed the sum of all capital and operating expenses, similarly discounted, including fuel costs using the projected cost of world oil, of an alternative conventional energy system.

(c) For the purposes of this section an active solar energy system shall be defined as the most cost-effective, commercially available active solar energy system.

(d) Subsections (a) and (b) shall not apply to those buildings which are designed to operate without heating, cooling, or hot water systems.

(e) For the purposes of this section, a Federal building is considered a "new Federal building" if the contract for the design and construction of that building or for a substantial renovation of that building has not been signed prior to the date prescribed in subsection (a).

(f) The Federal agency responsible for the costs of renovation or construction of a new Federal building or leasing of structures constructed wholly for use by the Federal Government shall also fund the costs of any solar energy system used on that building which may be required pursuant to this section.

(g) The methods established pursuant to section 545 of Public Law 95-619 shall be modified as appropriate to include the requirements of this section.

(h) Requirements of this section shall not apply to any Federal building selected for demonstration under title V, part 2 of Public Law 95-619, selected for use of systems acquired under the authority of Title V, part 4 of Public Law 95-619, and Title V and Title VI of this Act.

(1) The "Energy Conservation in Existing Buildings Act of 1976" (Public Law 94-385, as amended by Public Law 95-619) is amended by adding a new paragraph after section 412(9) (F) as follows—

"(G) materials associated with passive and active solar energy systems; and", and relabeling section 412(9) (G) as section 412(9) (H).

ENERGY SELF-SUFFICIENCY INITIATIVES

SEC. 607. (a) The purpose of this section is to establish local, State, regional, and national energy self-sufficiency programs to demonstrate by 1990 energy self-sufficiency through the use of renewable energy resources in local jurisdictions in the United States.

(b) The Secretary shall establish such programs as the Secretary determines are necessary to meet the purpose of this section, including programs—

(1) to promote the development and utilization of synergistic combinations of different renewable energy resources in specific projects aimed at reducing fossil fuel importation;

(2) to initiate and encourage energy self-sufficiency at appropriate levels of government so that removal of institutional and legal barriers to the development of renewable energy resources can be accelerated; and

(8) to stimulate private industry participation in the realization of the objectives outlined in subsection (a).

(c) In carrying out the provisions of this section, the Secretary is authorized to assign to an existing office in the Department of Energy the responsibility of undertaking programs he determines to be necessary to fully accomplish the goals established in subsection (a). The Secretary shall prepare a detailed plan within one hundred eighty days of the enactment of this Act, setting forth the responsibilities of the Office including the Federal actions and the expected State/local industry responses, needed to encourage and promote the adoption of programs for energy self-sufficiency.

(d) The Secretary shall report to the Congress on the plan, including in the report suggested legislative initiatives needed to fully implement the plan, within one year of the enactment of this Title.

SMALL BUSINESS SET-ASIDE

SEC. 608. Not less than 30 per centum of the total dollar amount of all contracts and grants awarded pursuant to section 606 of this Title for the procurement of goods and services shall be reserved exclusively for small business concerns, unless the contracting officer is unable to obtain two or more small business concerns that are competitive in terms of the demands of any particular grant or contract.

PHOTOVOLTAIC AMENDMENTS

SEC. 609. The Federal Photovoltaic Utilization Act (Public Law 95-619, Title V, part 4) is amended—

(a) in section 562(1) by adding a sentence to read "The term 'Federal facility' also applies to facilities connected with programs administered by the Federal agencies";

(b) in the first and third sentences of section 565 and in the second and third sentences of section 567(a) by inserting after the word "Secretary" the words "or other Federal agencies under delegation from the Secretary";

(c) in section 566(2) by deleting the words "such rules and regulations" and inserting the word "requirements" in lieu thereof; and

(d) in section 566 by deleting the word "and" at the end of subsection (2) and adding it at the end of subsection (3); and adding a subsection (4) containing the words "not be subject to the requirements of section 553 of Title 5, United States Code under this part notwithstanding any other provision of law."

AUTHORIZATION OF APPROPRIATIONS

SEC. 610. There is authorized to be appropriated to the Secretary for the fiscal year ending September 30, 1980, the sum of \$50,000,000 to carry out the purposes of this subtitle.

TITLE VII—WIND ENERGY INITIATIVES

SHORT TITLE

SEC. 701. (a). This Title may be cited as the "Wind Energy Systems Commercialization and Utilization Act of 1979."

(b) TABLE OF CONTENTS.—

- Sec. 701. Short title.
- Sec. 702. Findings.
- Sec. 703. Purpose.
- Sec. 704. Definitions.
- Sec. 705. Wind Energy Systems Commercialization Programs.
- Sec. 706. Criteria for Program Selection.
- Sec. 707. Monitoring, Information Gathering, and Liaison.
- Sec. 708. Analysis of Applications of Wind Energy Systems.
- Sec. 709. Federal Wind Utilization Program.
- Sec. 710. Small Business Set-Aside.
- Sec. 711. Authorization of Appropriations.

FINDINGS

SEC. 702. The Congress finds and declares that—

(a) it is the Nation's interest to provide opportunities for the increased production of electricity from renewable energy sources;

- (b) the early wide-spread utilization of wind energy for the generation of electricity and for mechanical power could lead to relief on the demand on existing non-renewable fuel and energy supplies;
- (c) the use of wind energy for certain applications has already proven feasible and economical;
- (d) an aggressive commercialization program could provide an assured and growing market for wind energy during the next decade, and maximize the future contribution of wind energy to this Nation's future energy production;
- (e) it is the proper and appropriate role of the Federal Government to undertake such a commercialization program in wind energy technologies and to assist private industry, other entities, and the general public in hastening the general use of such technologies; and
- (f) the widespread use of wind energy systems to supplement and replace conventional methods for the generation of electricity and mechanical power would have a beneficial effect upon the environment.

PURPOSE

Sec. 703. The purpose of this title is to establish the following wind energy program objectives—

- (a) to reach by fiscal year 1986, the installation to the maximum practicable, of the maximum megawatt capacity in the United States from wind energy systems which are life-cycle cost effective in comparison with conventional energy sources;
- (b) to reduce by the end of fiscal year 1986, the average cost of electricity produced by installed wind energy systems to a level competitive with conventional energy sources;
- (c) to accelerate the growth of a commercially viable and competitive industry to make wind systems available to the general public as an option in order to reduce national consumption of fossil fuel;
- (d) to reduce fossil fuel costs to the Federal Government; and
- (e) to stimulate the general use within the Federal Government of methods for the minimization of life-cycle costs; and to develop performance data on wind systems.

DEFINITIONS

Sec. 704. For the purposes of this Title—

- (1) the term "Secretary" means the "Secretary of the Department of Energy";
- (2) the term "renewable energy resource" means any energy resource which has recently originated in the Sun, including direct and indirect solar radiation and intermediate solar energy forms such as wind, ocean thermal gradients, ocean currents and waves, hydropower, photovoltaic energy, products of photosynthetic processes, organic wastes, and others;
- (3) the term "wind energy system" means a system of components, or a series of systems, which converts the kinetic energy of the wind into electricity or mechanical power, including all components necessary to provide electricity or mechanical power for individual, agricultural, commercial, industrial, or governmental use and use by utilities;
- (4) the term "small wind energy system" means a wind energy system having a capacity of less than one hundred kilowatts at a wind speed of twenty miles per hour;
- (5) the term "Federal facility" means any building, any commercial, agricultural, or industrial complex, or any device, and the land necessary for such building, complex or device, and includes facilities connected with programs administered by Federal agencies;
- (6) the term "conventional energy source" means energy produced from oil, gas, coal, and nuclear fuels; and
- (7) the term "cost-effective" means the sum of all capital and operating expenses associated with the system, with future costs being appropriately discounted over the expected life of the wind energy system or during a period of thirty years, whichever is shorter, does not exceed the sum of all capital and operating expenses similarly discounted, including fuel costs, using the projected cost of world oil, of an alternative conventional energy system.

WIND ENERGY SYSTEMS COMMERCIALIZATION PROGRAMS

Sec. 705. (a) The Secretary shall establish such commercialization programs as the Secretary determines are necessary to meet the purposes of this title, including programs—

(1) to promote and accelerate research, development, field experimentation, and commercialization of wind energy systems and components thereof; and
 (2) to coordinate Federal efforts to accomplish the objectives outlined in section 703.

(b) In carrying out the provisions of this section, the Secretary shall establish a program to allow public or private entities wishing to install a wind energy system in conjunction with any new or existing facility or to undertake a project to facilitate the utilization of a wind energy system, to apply for Federal assistance in investigation, designing, fabricating, testing, purchasing, installing, and marketing such wind energy system.

(c) In carrying out the provisions of this section, the Secretary is authorized—

(1) to enter into agreements with any entity applying under paragraph (b), based on the need to obtain scientific, technological, economic, market, environmental, and safety information from a variety of wind energy systems under a variety of circumstances and conditions, on land and offshore, for the investigation, design, purchase, fabrication, testing, installation, and commercialization of such a system, as well as the identification of suitable sites for wind installations;

(2) to provide as part of any agreement entered into under paragraph (1), loans to cover the estimated difference in costs between a wind energy system and available conventional power sources at the time the loan is to be made. Such estimated cost difference shall be determined in the following manner:

(A) In the case in which the wind energy system represents a displacement for conventional fuels, such difference in cost shall be considered to be the difference between the annual capital, operation, and maintenance costs of the wind energy system, which, for the purposes of this subsection only, shall include any new transmission system which the Secretary determines is required to be constructed in order to connect the wind energy system into the electrical system, and the annual cost of available conventional fuels;

(B) In the case in which the wind energy system represents base-load generating capacity, the difference in cost shall be considered to be the difference in power production costs between the power produced by the wind energy system and power produced by available conventional fuels; and

(C) The percentage of the purchase and installation costs of such wind energy system covered by such loan shall be set as to cover the cost differential between the wind energy system and available conventional power sources as determined in paragraphs (a) and (b);

(3) to enter into such contracts and make such grants or cooperative agreements as may be necessary or appropriate for the development of wind energy systems including the field experimentation of prototype systems for commercial production and utilization, in accordance with the applicable provisions of sections 7, 8, and 9 of the Federal Nonnuclear Energy Research and Development Act of 1974 (42 U.S.C. 5906, 5907 and 5908) and with procedures established in conjunction with subsection (b);

(4) to enter into arrangements with appropriate Federal agencies to carry out such projects and activities with respect to Federal facilities as may be appropriate for the development, field experimentation, and commercialization of wind energy systems which are suitable and effective for use in Federal facilities; and

(5) to undertake other programs and activities which further the purposes of this title.

(d) Title to and ownership of the wind energy systems constructed or installed, or both, under the provisions of this section may be conveyed to purchasers of such systems under terms and conditions prescribed by the Secretary, including an express agreement that any such purchaser shall (in such manner and form and on such terms and conditions as the Secretary may prescribe) observe and monitor (or permit the Secretary to observe and monitor) the performance and operation of any such wind energy system for a period of five years and that such purchaser (including any subsequent owner of the system) shall regularly furnish the Secretary with such reports on such system as the agreement may require.

(e) For the purposes of this section, with the exception of subsections (c) (1) and (2), the Secretary shall terminate Federal subsidization of purchases of wind energy systems by profitmaking entities when the Secretary determines that wind energy systems have become competitive with conventional energy sources, or September 30, 1986, whichever comes first.

CRITERIA FOR PROGRAM SELECTION

Sec. 706. The Secretary shall set priorities which are, as far as possible, consistent with the intent and purpose of this title and which are set in accordance with the following criteria:

- (a) The construction, operation and maintenance costs of wind energy systems shall be minimized;
- (b) Programs established under this title shall be conducted with the express intent of bringing wind energy system costs down to a level competitive with energy costs from conventional energy systems; and
- (c) Priority shall be given in the conduct of programs established under this title to those projects in which funds are provided by private, industrial, agricultural, or governmental entities or utilities for the purpose of sharing with the Federal Government the costs of purchasing and installing wind energy systems.

MONITORING, INFORMATION GATHERING, AND LIAISON

Sec. 707. (a) The Secretary, in coordination with such Government agencies as may be appropriate, shall—

- (1) monitor the performance and operation of wind energy systems installed under this title.
 - (2) collect and evaluate data and information on the performance and operation of wind energy systems installed under this title; and
 - (3) from time to time carry out such studies and investigations and take such other actions (including the submission of special reports to the Congress when appropriate) as may be necessary to assure that the programs for which the Secretary is responsible under this title effectively carry out the purposes of section 703.
- (b) The Secretary shall also maintain continuing liaison with related industries and interests and with the scientific and technical community in order to assure that the benefits of programs under this title are and will continue to be realized to the maximum extent feasible.
- (c) The Secretary, pursuant to section 605 of Title VI, shall assure subject to 5 U.S.C. 552 and 18 U.S.C. 1905 that full and complete information with respect to any program, project, or other activity conducted under this is made available to Federal, State, and local authorities, relevant segments of the economy, the scientific community, and the public so that the early, widespread, and practical use of wind energy throughout the United States is promoted to the maximum extent feasible.

ANALYSIS OF APPLICATIONS OF WIND ENERGY SYSTEMS

Sec. 708. The Secretary of Energy shall—

- (a) initiate and conduct a "Federal applications study for Wind Energy Systems", cooperatively with appropriate Federal agencies to determine the potential for the use of wind systems at specific Federal facilities; and this study shall—
 - (1) include an analysis which determined those sites that are currently cost-effective for wind energy systems as defined by section 704(6), as well as those which would be cost-effective as expected future market prices;
 - (2) identify potential sites and uses of wind energy systems at the following agencies as well as any others which the Secretary deems necessary:
 - (A) the Department of Defense;
 - (B) the Department of Transportation (including the United States Coast Guard, the Federal Aviation Administration, and the Federal Highway Administration);
 - (C) the Department of Commerce;
 - (D) the Department of Agriculture; and
 - (E) the Department of the Interior;
 - (3) provide a preliminary report to the Congress within nine months following the enactment of this title; and
 - (4) include the presentation of a detailed plan for the use of wind energy systems for power generation at specific sites in Federal Government agencies to the Congress within twelve months following the enactment of this title;
- (b) initiate and conduct a study of the effects of the widespread utilization of wind energy systems on the existing electrical utility system;

(c) initiate and conduct a study involving the prospects for applications of wind energy systems for power generation in foreign countries, particularly lesser developed countries and the potential for the exploration of these energy systems; This study shall involve the cooperation of the Department of State and the Department of Commerce, as well as other Federal agencies which the Secretary deems appropriate. A final report shall be submitted to the Congress, as well as a preliminary report within twelve months of the enactment of this title; and

(d) in carrying out his functions under this section, the Secretary shall consult with the appropriate government agencies, industry representatives, and members of the scientific and technical community having expertise and interest in this subject; The Secretary, as appropriate, may merge any continuing or ongoing studies within the Department of Energy or other Federal Agency with those required under this section to avoid any unnecessary duplication of effort or funding.

FEDERAL WIND UTILIZATION PROGRAM

SEC. 709. (a) There is hereby established a wind energy utilization program for the accelerated procurement and installation of wind systems for power production in Federal facilities.

(b) The program established by subsection (a) shall provide for the acquisition of wind systems by the Secretary or other Federal agencies under delegation from the Secretary for their use by Federal agencies. The acquisition of wind systems shall be at an annual level substantial enough to allow use of low-cost production techniques by suppliers of such systems. The Secretary or other Federal agencies under delegation from the Secretary is authorized to make such acquisitions through the use of multiyear contracts. Authority under this part to enter into acquisition contracts shall be only to the extent as may be provided in advance in appropriations Acts.

(c) The Secretary shall administer the program established under this section and shall—

(1) consult with the Secretary of Defense to insure that the installation and purchase of wind systems pursuant to this section shall not interfere with defense-related activities;

(2) implement practices to monitor and assess the performance and operation of wind systems installed pursuant to this section; and

(3) report annually to the Congress on the status of the program.

(d) (1) The Secretary shall establish, within sixty days after the date of the enactment of the Title, a wind systems evaluation and purchase program to provide such systems as are required by the Federal agencies to carry out this Title. In acquiring wind energy systems under this section, the Secretary, or other Federal agencies under delegation from the Secretary, need not require that such systems be life-cycle cost effective at the time of purchase, but that, to the maximum extent practicable, by the making of the purchase there is a probability that they could become life/cycle cost-effective in the future and shall schedule purchases in a manner which shall stimulate the early development of a permanent low-cost private wind production capability in the United States, and to stimulate the private sector market for wind systems.

(2) Nothing in the section shall preclude any Federal agency from directly procuring a wind system (in lieu of obtaining one under the program under subsection (a)), except that any such Federal agency shall notify the Secretary before procuring such a system.

(e) (1) There is hereby established an advisory committee to assist the Secretary in the establishment and conduct of the programs established under this section.

(2) Such committee shall be composed of the Secretary of Defense, the Secretary of Housing and Urban Development, the Administrator of the National Aeronautics and Space Administration, the Administrator of the General Services Administration, the Secretary of Transportation, the Administrator of the Small Business Administration, the Chairman of the Federal Trade Commission, the Postmaster General, and such other persons as the Secretary deems necessary. The Secretary shall appoint such other nongovernmental persons to the extent necessary to assure that the membership of the committee will be fairly balanced in terms of the point of view represented and the functions to be performed by the committee.

SMALL BUSINESS SET-ASIDE

SEC. 710. Not less than 30 per centum of the total dollar amount of all contracts and grants awarded pursuant to sections 705 and 709 of this Title for the procurement of goods and services shall be reserved exclusively for small business concerns, unless the contracting officer is unable to obtain two or more small business concerns that are competitive in terms of the demands of any particular grant or contract.

AUTHORIZATION OF APPROPRIATIONS

SEC. 711. There is authorized to be appropriated to the Secretary for the fiscal year ending September 30, 1980, the sum of \$100,000,000 to be used for the programs authorized in this title.

TITLE VIII—SOLAR ENERGY DEVELOPMENT BANK**SHORT TITLE**

SEC. 801. (a) This Title may be cited as the "Solar Energy Development Bank Act of 1979".

(b) TABLE OF CONTENTS—

Sec. 801. Short Title.
Sec. 802. Purpose.
Sec. 803. Definition.
Sec. 804. Establishment of the Bank.
Sec. 805. Powers.
Sec. 806. Advisory Board.
Sec. 807. Subsidy payments.
Sec. 808. Penalties.
Sec. 809. Reports.
Sec. 810. Promotion of program.
Sec. 811. Authorization of appropriations.

PURPOSE

SEC. 802. It is the purpose of this title to encourage the use of solar energy, and thereby reduce the Nation's dependence on foreign sources of energy supplies, by establishing a Solar Energy Development Bank to provide subsidies for below-market interest rate loans made to owners or builders of commercial and residential structures for the purchase and installation of solar energy systems in such structures.

DEFINITION

SEC. 803. For the purpose of this title, the term—

(1) "Secretary" means the Secretary of Housing and Urban Development; and

(2) "solar energy systems" shall be defined as in section 2(a) of the National Housing Act, as amended by section 241 of the National Energy Conservation Policy Act, and shall also include wood-burning appliances, solar process heat, solar electric devices, and earth shelters which are in conformity with such criteria and standards as shall be prescribed by the Secretary in consultation with the Secretary of Energy.

ESTABLISHMENT OF THE BANK

SEC. 804. (a) There is hereby created a Solar Energy Development Bank (hereinafter referred to as the "Solar bank") which shall be in the Government National Mortgage Association. The Solar Bank shall have succession until five years after the date of the enactment of this Title or until dissolved by an Act of the Congress, whichever occurs first.

(b) The General Accounting Office shall periodically audit the financial transactions of the Solar Bank, and, for this purpose, shall have access to all of its books, records, and accounts.

(c) No officer, attorney, agent, or employee of the Solar Bank may participate, directly or indirectly, in any manner in the deliberations upon, or the determination of, any matter affecting his personal interest, or the interests of any corporation, partnership, or association with which he is directly or indirectly associated.

(d) The Solar Bank may impose fees or charges for its services which shall be deposited into the miscellaneous receipts of the Treasury.

POWERS

SEC. 805. (a) The Secretary, with the Advisory Board established by section 804, shall have the power to fix the level of subsidy, not to exceed 6 percentage points below the current maximum interest rate permitted on a mortgage insured under section 203(b) of the National Housing Act, on loans subsidized by the Bank and the interest rate paid by borrowers on such loans, and from time to time to alter the level of subsidy and interest rates for new loans subsidized by the Bank. In doing so the Bank shall give consideration to such factors as is shall deem appropriate including, but not limited to the following:

- (1) the prevailing market rates of interest for home mortgages, home improvement loans, and commercial loans, as well as prevailing market rates of interest for Government and corporate bonds;
- (2) the availability of other Federal Government incentives and subsidies for solar energy equipment, including Federal income tax credits;
- (3) the costs of nonrenewable energy resources and systems;
- (4) the costs of solar energy systems; and
- (5) the levels of subsidy needed to induce consumers and builders to install solar energy systems in residential and commercial buildings.

(b) The Secretary shall establish eligibility criteria which do not discriminate against simple passive or hybrid solar energy systems and which do not subsidize nonenergy related housing costs. Criteria may take into account energy saved through the use of simple passive and hybrid solar energy systems.

ADVISORY BOARD

SEC. 806. (a) As part of the Solar Bank, there shall be an Advisory Board which shall make the report described in section 809 and provide advice to the Secretary for the purpose of assisting the Solar Bank in carrying out the provisions of this title. Such Advisory Board shall be composed of—

- (1) one individual who is not an officer or employee of any governmental entity and who is able to represent the views of the general public as a result of his or her education, training, and experience;
- (2) one individual who is not an officer or employee of any governmental entity or of any entity engaged in the exploration, development, production, or delivery of any energy resource and who is qualified to serve on the Board as a result of his or her education, training, and experience in scientific endeavors;
- (3) one individual who is able to represent the views of the solar energy industry as a result of his or her education, training, and experience;
- (4) one individual who is able to represent the views of lending and financial institutions as a result of his or her education, training, and experience; and
- (5) one individual who is able to represent the views of low-income persons as a result of his or her education, training, and experience.

(b) The individuals described in paragraphs (1), (2), (3), (4), and (5) of subsection (a) shall be appointed by the President of the United States.

(c) If any member of the Advisory Board becomes an officer or employee of a government or becomes employed in a manner which would disqualify the person from being on the Board, he or she may continue as a member of the Board for not longer than the ninety-day period beginning on the date he or she leaves that office or becomes such an officer or employee, as the case may be.

(d) (1) Except as provided by paragraphs (2) and (3) of this subparagraph, members appointed under paragraphs (1), (2), (3), (4), and (5), of subsection (a) shall be appointed for a term of two years.

(2) Of the members first appointed, those appointed under paragraphs (1) and (2) of subsection (a) shall be appointed for a term of two years and those appointed under paragraphs (3), (4), and (5) of subsection (a) shall be appointed for a term of three years.

(3) Any member appointed under paragraph (1), (2), (3), (4), or (5) of subsection (a) to fill a vacancy occurring prior to the expiration of the term for which his or her predecessor was appointed shall be appointed only for the remainder of such term. A member may serve after the expiration of his or her term until a successor has taken office.

(e) (1) Except as provided in paragraph (2) of this subsection, members of the Advisory Board shall be entitled to receive the daily equivalent of the annual

rate of basic pay in effect for grade GS-15 of the General Schedule for each day (including traveltime) during which they are engaged in the actual performance of duties vested in the Advisory Board.

(2) While away from their homes or regular places of business in the performance of services for the Advisory Board, members of the Advisory Board shall be allowed travel expenses, including per diem in lieu of subsistence in the same manner as persons employed intermittently in the Government service are allowed expenses under section 5703(b) of title 5, United States Code.

(f) Three members of the Board shall constitute a quorum but a lesser number may hold hearings.

(g) The Chairperson and Vice Chairperson of the Advisory Board shall be elected by the members of the Advisory Board. The term of office of the Chairperson and Vice Chairperson shall be two years.

SUBSIDY PAYMENTS

SEC. 807. (a) (1) The Solar Bank may, beginning with fiscal year 1980, make payments to financial institutions for the purpose of subsidizing belowmarket rate loans which are made by such institutions to owners or builders of commercial and residential structures and to units of local government in connection with programs described in subsection (d) (3) for the purchase and installation of solar energy systems in such structures and which meet the requirements of this section. Such payments may also be made with respect to the portion of a larger loan which is allocable to the solar energy systems.

(2) The amount of any payment made with respect to any loan or qualifying portion of a loan may be in a lump-sum payment and shall be in an amount necessary, as determined by the Solar Bank, to compensate the financial institution for the difference between the interest rate determined by the Secretary and the yield it would have received if the loan were made at a market rate.

(3) The Solar Bank may, with respect to any loan for which a subsidy payment is made under this Title, require the financial institution to repay the Solar Bank any amount to which the Solar Bank is entitled as a result of the borrower's failure to meet his obligation under the loan.

(b) A payment may be made under this section with respect to a loan or qualifying portion of a loan only if—

(1) the term of repayment does not exceed thirty years and is not less than five years, except that there shall be no penalty imposed on the borrower if the loan or advance of credit is repaid at any time before the term of repayment expires;

(2) the amount of such loan allocable to purchase an installation of a solar energy system does not exceed \$10,000 per unit in the case of any one- to four-family residential structure, \$5,000 per unit in the case of any residential structure with five or more dwelling units (not to exceed \$200,000 per loan), and \$200,000 in the case of any commercial structure;

(3) the solar energy system purchased and installed with such loan is covered by a warranty that the installer or manufacturer, or both, will remedy any defects in materials, manufacture, or installation of the system without charge and within reasonable time (including, if necessary, repair or replacement at the site) which becomes evident within one year from the date of installation or such longer period as the Secretary determines is reasonable. The Secretary may also require that such warranty include a requirement that the installer will provide, without charge and within fifteen days before the expiration of the warranty, an onsite inspection of the system and components for the purpose of discovering and remedying any defects which may be present;

(4) the security for the loan meets the requirements of the Government National Mortgage Association; and

(5) the solar energy system to be financed will be purchased and installed after the date of enactment of this Title.

(c) At least 60 per centum of the amount of subsidy payments made under this section in any year shall be for the purpose of assisting the financing of solar energy systems in residential structures.

(d) (1) At least 5 per centum of the amount of subsidy payments made under this section in any year shall be for the purpose of assisting the financing of solar energy systems in the residential structures occupied by low-income persons. The Secretary shall fix special subsidy levels on loans subsidized by the bank pursuant to this subsection.

(2) Any failure to expend funds specified in this subsection shall not delay payments made under other subsections. Funds available for this subsection that are not expended in a given year shall remain available for the following year.

(3) For the purposes of this subsection, a unit of local government shall be considered an eligible recipient of a subsidized loan on behalf of low-income persons in connection with a project carried out with other housing or rehabilitation programs.

PENALTIES

SEC. 808. Any person who knowingly makes any false statement or misrepresents any material fact with respect to any loan assisted under this title shall be fined not more than \$10,000 or imprisoned not more than one year, or both.

REPORTS

SEC. 809. The Advisory Board shall make an annual report to both Houses of Congress and to the President of the United States for the purpose of providing a detailed accounting of the operation of the program established by this title making recommendations for improvements in such program, and identifying problem areas within the solar energy industry, the Federal Government, and lending institutions which may be inhibiting the success of such program. Such report shall include the majority and minority and dissenting views of the Advisory Board and the views of the Secretary.

PROMOTION OF THE PROGRAM

SEC. 810. The Solar Bank shall promote the program established by this title by informing financial institutions and consumers of the benefits of such program and by actively seeking their participation in the program.

AUTHORIZATION OF APPROPRIATIONS

SEC. 811. There are authorized to be appropriated to carry out the purposes of this title not to exceed \$50,000,000 for the fiscal year ending September 30, 1980, \$150,000,000 for the fiscal year ending September 30, 1981, and \$275,000,000 for the fiscal year ending September 30, 1982.

TITLE IX—EXTENSION OF DEFENSE PRODUCTION ACT

SHORT TITLE

SEC. 901. This title may be cited as the "Defense Production Act Extension Amendments of 1979".

AMENDMENT TO DEFENSE PRODUCTION ACT OF 1950

SEC. 902. The first sentence of section 717(a) of the Defense Production Act of 1950 (50 U.S.C. App. 2166a) is amended by striking out "September 30, 1979" and inserting in lieu thereof "September 30, 1981".

ENERGY FINANCING ACT OF 1979

The amendment of the Committee on Banking, Housing, and Urban Affairs reads as follows:

SHORT TITLE

SECTION 1. This act may be cited as the "Energy Financing Act of 1979".

TITLE I—DEFENSE PRODUCTION ACT AMENDMENTS

DECLARATION OF POLICY

SEC. 101. The second sentence of section 2 of the Defense Production Act of 1950 (50 U.S.C. App. 2062) is amended by striking out the period at the end and inserting in lieu thereof "or to respond to actions occurring outside

of the United States which could result in the termination or reduction of the availability of strategic and critical materials, including petroleum, and which would adversely affect the national defense preparedness which is essential to national security, it is also necessary and appropriate to achieve greater independence in domestic energy supplies.”.

SYNTHETIC FUELS DEMONSTRATION PROGRAM

Sec. 102. Title III of the Defense Production Act of 1950 (50 U.S.C. App. 2091-2094) is amended by adding at the end thereof the following new section:

“Sec. 305. (a) The President, utilizing the provisions of this section, shall establish a program to determine the commercial viability of synthetic fuels technologies.

“(b) The purpose of this program is—

“(1) to stimulate development of synthetic substitutes for crude oil and conventional natural gas while minimizing Government involvement;

“(2) to determine what additional efforts on the part of the Federal Government are necessary and appropriate to assure development of synthetic fuels production capacity at an optimal pace;

“(3) to expedite design, construction, and operation of synthetic fuels commercial demonstration plants by minimizing Federal Government procedural requirements for selecting projects to receive Federal financial assistance under this section; and

“(4) to test synthetic fuels technologies to determine, their potential role in meeting the Nation's energy needs in terms of—

“(A) their commercial viability;

“(B) their environmental impact, including, but not limited to, water consumption, water pollution, and air pollution;

“(C) their health and safety aspects, including, but not limited to, any carcinogenic effect;

“(D) their effect on regional and local agricultural production;

“(E) their social and economic impacts; and

“(F) their thermodynamic balances.

“(c) The President shall—

“(1) invite submission of proposals from interested persons (hereinafter referred to as ‘bidders’), requesting Federal assistance in the form of purchase commitments, loan guarantees, or a combination of the two, for the design, construction, and operation of synthetic fuels commercial demonstration projects (hereinafter referred to as ‘projects’). The President shall require that each proposal contain such information as necessary for the purposes of preventing selection of more than one project involving the same technology and insuring selection of projects which best serve the purposes of this section as set forth in subsection (b): Provided, That the President shall minimize requirements for information to be included in the proposal by directing the Office of Management and Budget to eliminate duplicative reporting forms issued by one or more agencies so that an applicant will be relieved of multiple filings of similar or identical information;

“(2) not later than one year after the invitation for proposals, select on a competitive basis to the maximum extent practicable up to twelve proposals which are deemed most likely to contribute to the purposes of this section and which each employ a different processing technology; no more than six such proposals employing the same generic feedstock; and

“(3) subject to the provisions of this section, enter into contracts with bidders providing for commitments to purchase synthetic fuels produced by the proposed projects and with public or private financing institutions for guaranteeing loans for design, construction, and operation of the proposed projects.

“(d) Such contracts shall be subject to the following conditions:

“(1) the proposed project must be located in the United States, including the several States, the District of Columbia, the Commonwealth of Puerto Rico, and any other territory or possession of the United States, but no project may be owned or operated by the United States or any department or agency thereof;

“(2) no contract shall require or permit advance payments:

“(3) loan guarantees may be employed only if the President determines that the purposes set forth in subsection (b) could not be achieved through purchase commitment contracts alone;

“(4) all contracts must be entered into before October 1, 1981;

"(5) no contract may commit the Federal Government to purchases beyond the seventh year of synthetic fuels production from a project, unless both Houses of Congress have been notified in writing of such proposed contract and thirty days of continuous session of Congress have expired following the date at which such notice was transmitted to the Congress and neither House of Congress has adopted, within such thirty-day period, a resolution, described in subsection (k), disapproving such proposed contract;

"(6) any purchase commitment contract shall provide that the President retains the right to refuse delivery of the synthetic fuels involved and to pay the person involved an amount equal to the amount by which the price for such synthetic fuels as specified in the contract involved exceeds the market price, as determined by the Secretary of Energy, for such synthetic fuels on the delivery date specified in such contract;

"(7) with respect to any person, including any other person who is substantially controlled by such person (as determined by the Secretary of Energy), the President may not award contracts for commitment to purchase more than fifty thousand barrels per day equivalent of synthetic fuels, or make loan guarantees for design, construction, and operation of a plant designed to produce over fifty thousand barrels per day equivalent of synthetic fuels;

"(8) any purchase commitment contract shall commit the Government to purchase fixed amounts of fuels at fixed prices adjusted by a formula that may take into account inflation, world oil prices or such other prices as the Secretary deems relevant except that project costs may not be considered as a factor;

"(9) Federal loan guarantees shall not exceed 75 per centum of a project's estimated costs at the making of the contract;

"(10) the President shall establish such terms and conditions for loan guarantees under this section as necessary to implement the purposes of this section and insure the prompt repayment of loans;

"(11) the President may not enter into any contract providing a Federal loan guarantee of an amount in excess of \$500,000,000 unless both Houses of Congress have been notified in writing of such proposed contract and thirty days of continuous session of Congress have expired following the date on which such notice was transmitted to the Congress and both Houses of Congress have not adopted, within such thirty-day period, resolutions, described in subsection (k), disapproving such proposed contract;

"(12) guarantees may be made only to the extent appropriated funds are available. For the purposes of this section, \$3 of guarantee authority shall be available for every \$1 appropriated for this purpose. Appropriated funds shall remain available until termination of all guarantees; and

"(13) the amount of purchase commitments shall not exceed \$3,000,000,000, subject to approval in an appropriation Act.

For the purpose of clause (1) only the excess of the price per unit in commitments issued over the market price shall be charged to any appropriation.

"(e) The procurement power granted to the President by this section shall include the power to transport and store and have processed and refined any products procured under this section.

"(f) Each Federal officer and agency having authority to issue any permit for, or to otherwise approve or authorize, the construction or operation of a project selected under this section or for construction or operation of any facility for production or distribution of energy or for exploration or development of Federal land in connection with energy production shall—

"(1) in accordance with Executive Order 12119, expedite all actions necessary for the issuance of such permit, approval, or authorization, and

"(2) take final action thereon not later than twelve months after the date application for such permit, approval, or authorization is made. After taking any such action, such officer or agency shall publish notification thereof in the Federal Register.

"(g) Notwithstanding any other provision of law, liquid fuels acquired pursuant to the provisions of this section which, in the judgment of the President, are excess to the needs of programs under this section, shall be transferred to the Strategic Petroleum Reserve, when the President deems such action to be in the public interest.

"(h) The President shall submit a report to the Congress within one hundred and eighty days after the enactment of this section setting forth a comprehensive plan to implement the program described in this section. In preparing such a

comprehensive plan, the President shall consult with the heads of the Department of Energy, the Environmental Protection Agency, the Department of Housing and Urban Development, the Department of the Interior, the Department of Labor, the Department of Agriculture, and the Department of the Treasury. The plan shall include, but not be limited to—

- "(1) regulations required to carry out the purposes of this section ;
- "(2) a list of Federal agencies, governmental entities, and other persons who will be consulted or used to implement the program by this section ;
- "(3) a plan for the study and monitoring of the health effects of such facilities on workers and other persons, including, but not limited to, any carcinogenic effect; and

"(4) the methods and procedures to insure that the projects will be no larger than necessary to demonstrate the commercial validity of the technologies.

"(1) The President shall submit annually a detailed report to the Congress concerning the actions taken or not taken by the President under this section during the preceding fiscal year including, but not limited to—

"(1) a discussion of the status of each project financed under this section including progress made in the development of such projects, and the expected or actual production from each project, including by product production therefrom, and the distributions of such products and byproducts ;

"(2) a detailed statement of the costs of the program established by this section ;

"(3) data concerning the environmental, social, and economic impacts of each such project ;

"(4) the administrative and other costs incurred by the Federal agencies in carrying out this program ;

"(5) recommendations as to the appropriate level of further Government involvement in commercialization of synthetic fuel technologies ; and

"(6) such other data as may be helpful in keeping the Congress and the public fully and currently informed about the program authorized by this section.

"(j) The reports required by subsection (i) of this section shall be a part of the annual reports required by section 657 of the Department of Energy Organization Act, except that the matters required to be reported by this section shall be clearly set out and identified in such annual reports.

"(k) (1) The resolution disapproving proposed contracts under this section shall read as follows after the resolving clause: 'That the does not favor the taking effect of the contract terms transmitted to Congress by the President on , the first blank space therein being filled with the name of the resolving House and the second blank space therein being filled with the day and year.

"(2) Upon introduction, the resolution shall be referred immediately to the Committee on Banking, Housing, and Urban Affairs of the Senate and the Committee on Banking, Finance and Urban Affairs of the House.

"(3) (A) If the committee to which a resolution of disapproval has been referred has not reported it at the end of seven calendar days after its introduction, it is in order to move either to discharge the committee from further consideration of the resolution or to discharge the committee from further consideration of any other resolution of disapproval which has been referred to the committee.

"(B) A motion to discharge may be made only by an individual favoring the resolution, is highly privileged (except that it may not be made after the committee has reported a resolution of disapproval), and debate thereon shall be limited to not more than one hour, to be divided equally between those favoring and those opposing the resolution. An amendment to the motion is not in order, and it is not in order to move to reconsider the vote by which the motion is agreed to or disagreed to.

"(C) If the motion to discharge is agreed to or disagreed to, the motion may not be renewed, nor may another motion to discharge the committee be made with respect to any other resolution of disapproval.

"(4) (A) When the committee has reported, or has been discharged from further consideration of, a resolution of disapproval, it is at any time thereafter in order (even though a previous motion to the same effect has been disagreed to) to move to proceed to the consideration of the resolution. The motion is highly privileged and is not debatable. An amendment to the motion is not in order, and it is not in order to move to reconsider the vote by which the motion is agreed to or disagreed to.

"(B) Debate on the resolution of disapproval shall be limited to not more than ten hours, which shall be divided equally between those favoring and those opposing the resolution. A motion further to limit debate is not debatable. An amendment to, or motion to recommit, the resolution is not in order, and it is not in order to move to reconsider the vote by which the resolution is agreed to or disagreed to.

"(5) (A) Motions to postpone, made with respect to the discharge from committee or the consideration of a resolution of disapproval, and motions to proceed to the consideration of other business, shall be decided without debate.

"(B) Appeals from the decisions of the Chair relating to the application of the rules of the House of Representatives or the Senate, as the case may be, to the procedure relating to any resolution of disapproval shall be decided without debate.

"(1) Nothing in this section may be construed to authorize any program of fuel allocation or rationing."

PRODUCTION OF HEAVY OILS AND TAR SANDS

Sec. 108. Title III of the Defense Production Act of 1950 (50 U.S.C. App. 2091-2094) is amended by adding at the end thereof the following new section:

"Sec. 306. (a) In order to expand production of petroleum products from heavy oils and tar sands, the President is authorized to enter into contracts with persons proposing to extract such heavy oils and tar sands from the ground. Such contracts shall provide to such persons Federal Government guarantees of a market price for such heavy oils and tar sands determined as follows:

"(1) the amount of the guaranteed market price shall be initially set at and never be lower than 90 per centum of the world oil price for petroleum of comparable grade on the date of enactment of this Act, as determined by the President;

"(2) the amount of the guaranteed market price shall be increased annually to equal the lesser of—

"(A) 90 per centum of the new world price of oil, as determined by the President, or

"(B) 90 per centum of the world price oil on the date of enactment of this Act, as determined in subparagraph (1) above, adjusted annually for inflation using the gross national product deflator.

"(b) For the purposes of this section, the terms 'heavy oils' and 'tar sands' include fuels if the hydrocarbon content thereof has a gravity of twenty degrees or less (API). For purposes of applying the preceding sentence, the President may substitute a higher gravity rating (API) than twenty degrees in any case in which he determines that the application of the higher gravity rating would further the purposes of this section.

"(c) (1) Price guarantees shall not be available under this section for heavy oils or tar sands produced outside of the United States, including the several States, the District of Columbia, the Commonwealth of Puerto Rico, and any other territory or possession of the United States.

"(2) No person, including any person substantially controlled by such person as determined by the President, shall be eligible to receive a guarantee of a market price under this section with respect to more than fifty thousand barrels per day of equivalent.

"(3) No guarantee issued under this section shall extend beyond 2000."

GENERAL PROVISIONS

Sec. 109. (a) Section 202 of the Defense Production Act of 1950 (50 U.S.C. App. 2102) is amended by adding at the end thereof the following:

"(2) The words 'synthetic fuels' means any product derived from coal (including oil shale) or gas, and peat, or oil shale which is suitable for substitution for petroleum in transport."

(b) Section 211 (a) of the Defense Production Act of 1950 (50 U.S.C. App. 2161) is amended:

"(1) by striking out 'There is authorized to be appropriated' and inserting in lieu thereof 'Except for the purposes of section 306, there is'

"(2) by striking out the last sentence of the following new sentence: 'For the purposes of section 306, there is hereby authorized to be appropriated without limitation of amount \$500,000,000.'

(c) The first sentence of section 717(a) of the Defense Production Act of 1950 (50 U.S.C. App. 2166(a)) is amended by striking out "September 30, 1979" and inserting in lieu thereof "September 30, 1981".

TITLE II—SOLAR ENERGY DEVELOPMENT BANK

PURPOSE

SEC. 201. It is the purpose of this title to encourage the use of solar energy, and thereby reduce the Nation's dependence on foreign sources of energy supplies, by establishing a Solar Energy Development Bank to provide subsidies for below-market interest rate loans made to owners or builders of commercial and residential structures for the purchase and installation of solar energy systems in such structures.

ESTABLISHMENT OF THE BANK

SEC. 202. (a) There is hereby created a body corporate to be known as the Solar Energy Development Bank (hereinafter referred to as the "Solar Bank") which shall be in the Department of Housing and Urban Development. The Solar Bank shall have succession until five years after the date of the enactment of this Act or until dissolved by an Act of Congress, whichever occurs first, and it shall maintain its principal office in the District of Columbia and shall be deemed, for purposes of jurisdiction and venue in civil actions, to be a District of Columbia Corporation.

(b) There is established in the Department of Housing and Urban Development the position of President, Solar Bank, who shall be appointed by the President, by and with the advice and consent of the Senate, and who shall be compensated at the rate now or hereafter prescribed for Executive level IV by section 5315 of title 5, United States Code. Subject to the direction of the Board of Directors of the Solar Bank, the President shall manage and supervise the affairs of the Solar Bank and shall perform such other functions as the Board may prescribe.

(c) The General Accounting Office shall periodically audit the financial transactions of the Solar Bank, and, for this purpose, shall have access to all of its books, records, and accounts.

(d) No officer, attorney, agent, or employee of the Solar Bank may participate, directly or indirectly, in any manner in the deliberations upon, or the determination of, any matter affecting his personal interest, or the interests of any corporation, partnership, or association with which he is directly or indirectly associated.

(e) The Solar Bank may impose fees or charges for its services which shall be deposited into the miscellaneous receipts of the Treasury.

(f) The Solar Bank shall have the same corporate powers given the Government National Mortgage Association in 309(a) of the National Housing Act.

BOARD OF DIRECTORS

SEC. 203. (a) The Solar Bank shall be governed by a Board of Directors (hereinafter referred to as the "Board") which shall provide advice to the President of the Solar Bank and to the Secretary of Housing and Urban Development for the purpose of assisting the Solar Bank in carrying out the provisions of this Act. The Board shall consist of the Secretary of Housing and Urban Development, the Secretary of the Treasury, and the Secretary of Energy. The Board shall adopt, and may amend or repeal, such regulations as are necessary or convenient for the functioning of the Solar Bank.

(b) Two members of the Board shall constitute a quorum.

(c) The Chairperson of the Board shall be the Secretary of Housing and Urban Development.

(d) The Board, in consultation with the Advisory Board established by section 5, shall have the power to fix the levels of subsidy on loans subsidized by the Bank and the interest rates paid by borrowers on such loans, but not lower than 6 percentage points below the current maximum interest rate permitted on a mortgage insured under section 203(b) of the National Housing Act, and from time to time to alter the levels of subsidy and interest rates for new loans subsidized by the Bank. In doing so the Bank shall give consideration to such factors as it shall deem appropriate, including, but not limited to the following:

(1) the prevailing market rates of interest for home mortgages, home improvement loans, and commercial loans, as well as prevailing market rates of interest for Government and corporate bonds;

(2) the availability of other Federal Government incentives and subsidies for solar energy equipment, including Federal income tax credits;

(3) the costs of nonrenewable energy resources and systems;

(4) the costs of solar energy systems; and

(5) the levels of subsidy needed to induce consumers and builders to install solar energy systems in residential and commercial buildings.

(e) The President of the Bank shall establish eligibility criteria which do not discriminate against simple passive or hybrid solar energy systems and which do not subsidize nonenergy related housing costs. Criteria may take into account energy saved through the use of simple passive and hybrid solar energy systems.

ADVISORY BOARD

SEC. 204. (a) As part of the Solar Bank, there shall be an Advisory Board which shall make the report described in section 207 and provide advice to the President of the Solar Bank and to the Board of Directors for the purpose of assisting the Solar Bank in carrying out the provisions of this title. Such Advisory Board shall be composed of—

(1) one individual who is not an officer or employee of any governmental entity and who is able to represent the views of the general public as a result of his or her education, training, and experiencing;

(2) one individual who is not an officer or employee of any governmental entity or of any entity engaged in the exploration, development, production, or delivery of any energy resource and who is qualified to serve on the Board as a result of his or her education, training, and experience in scientific endeavors;

(3) one individual who is able to represent the views of the solar energy industry as a result of his or her education, training, and experience;

(4) one individual who is able to represent the views of lending and financial institutions as a result of his or her education, training, and experience; and

(5) one individual who is able to represent the views of low-income persons as a result of his or her education, training, and experience.

(b) The individual described in paragraphs (1), (2), (3), (4), and (5) of subsection (a) shall be appointed by the President of the United States.

(c) If any member of the Advisory Board becomes an officer or employee of a government or becomes employed in a manner which would disqualify the person from being on the Board, he or she may continue as a member of the Board for not longer than the ninety-day period beginning on the date he or she leaves that office or becomes such an officer or employee, as the case may be.

(d) (1) Except as provided by paragraphs (2) and (3) of this subparagraph, members appointed under paragraphs (1), (2), (3), (4), and (5), of subsection (a) shall be appointed for a term of two years.

(2) Of the members first appointed, those appointed under paragraphs (1) and (2) of subsection (a) shall be appointed for a term of two years and those appointed under paragraphs (3), (4), and (5) of subsection (a) shall be appointed for a term of three years.

(3) Any member appointed under paragraph (1), (2), (3), (4), or (5) of subsection (a) to fill a vacancy occurring prior to the expiration of the term for which his or her predecessor was appointed shall be appointed only for the remainder or such term. A member may serve after the expiration of his or her term until a successor has taken office.

(e) (1) Except as provided in paragraph (2) of this subsection, members of the Advisory Board shall be entitled to receive the daily equivalent of the annual rate of basic pay in effect for grade GS-15 of the General Schedule for each day (including travel time) during which they are engaged in the actual performance of duties vested in the Advisory Board.

(2) While away from their homes or regular places of business in the performance of services for the Advisory Board, members of the Advisory Board shall be allowed travel expenses, including per diem in lieu of subsistence, in the same manner as persons employed intermittently in the Government service are allowed expenses under section 5703(b) of title 5, United States Code.

(f) Three members of the Board shall constitute a quorum but a lesser number may hold hearings.

(g) The Chairperson and Vice Chairperson of the Advisory Board shall be elected by the members of the Advisory Board. The term of office of the Chairperson and Vice Chairperson shall be two years.

SUBSIDY PAYMENTS

SEC. 205. (a) (1) The Solar Bank may, beginning with fiscal year 1980, make payments to financial institutions for the purpose of subsidizing below-market rate loans which are made by such institutions to owners or builders of commercial and residential structures and to units of local government in connection with programs described in subsection (d) (3) for the purchase and installation of solar energy systems in such structures and which meet the requirements of this section. Such payments may also be made with respect to the portion of a larger loan which is allocable to the solar energy systems.

(2) For purposes of this title, the term "solar energy systems" shall be defined as in section 2(a) of the National Housing Act, as amended by section 241 of the National Energy Conservation Policy Act, and shall also include wood-burning appliances, solar process heat, solar electric devices, and earth shelters which are in conformity with such criteria and standards as shall be prescribed by the Secretary of Housing and Urban Development in consultation with the Secretary of Energy.

(3) The amount of any payment made with respect to any loan or qualifying portion of a loan may be in a lump-sum payment and shall be in an amount necessary, as determined by the Solar Bank, to compensate the financial institution for the difference between the interest rate determined by the Board of the Solar Bank and the yield it would have received if the loan were made at a market rate.

(4) The Solar Bank may, with respect to any loan for which a subsidy payment is made under this title, require the financial institution to repay the Solar Bank any amount to which the Solar Bank is entitled as a result of the borrower's failure to meet his obligation under the loan.

(b) A payment may be made under this section with respect to a loan or qualifying portion of a loan only if—

(1) the term of repayment does not exceed thirty years and is not less than five years, except that there shall be no penalty imposed on the borrower if the loan or advance of credit is repaid at any time before the term of repayment expires;

(2) the amount of such loan allocable to purchase and installation of a solar energy system does not exceed \$10,000 per unit in the case of any one- to four-family residential structure, \$5,000 per unit in the case of any residential structure with five or more dwelling units (not to exceed \$500,000 per loan), and \$200,000 in the case of any commercial structure;

(3) the solar energy system purchased and installed with such loan is covered by a warranty that the installer or manufacturer, or both, will remedy any defects in materials, manufacture, or installation of the system without charge and within reasonable time (including, if necessary, repair or replacement at the site) which becomes evident within one year from the date of installation or such longer period as the Board of Directors of the Solar Bank determines is reasonable. The Board of Directors may also require that such warranty include a requirement that the installer will provide, without charge and within fifteen days before the expiration of the warranty, an onsite inspection of the system and components for the purpose of discovering and remedying any defects which may be present;

(4) the security for the loan meets the requirements of the Board of Directors of the Solar Bank; and

(5) the solar energy system to be financed will be purchased and installed after the date of enactment of this Act.

(c) At least 60 per centum of the amount of subsidy payments made under this section in any year shall be for the purpose of assisting the financing of solar energy systems in residential structures.

(d) (1) At least 5 per centum of the amount of subsidy payments made under this section in any year shall be for the purpose of assisting the financing of solar energy systems in residential structures occupied by low-income persons. The Board of Directors shall fix special subsidy levels on loans subsidized by the Bank pursuant to this subsection.

(2) Any failure to expend funds specified in this subsection shall not delay payments made under other subsections. Funds available for this subsection that are not expended in a given year shall remain available for the following year.

(3) For the purposes of this subsection, a unit of local government shall be considered an eligible recipient of a subsidized loan on behalf of low-income

persons in connection with a project carried out with other housing or rehabilitation programs.

PENALTIES

Sec. 206. Any person who knowingly makes any false statement or misrepresents any material fact with respect to any loan assisted under this title shall be fined not more than \$10,000 or imprisoned not more than one year, or both.

REPORTS

Sec. 207. The Advisory Board shall make an annual report to both Houses of Congress and to the President of the United States for the purpose of providing a detailed accounting of the operation of the program established by this title, making recommendations for improvements in such program, and identifying problem areas within the solar energy industry, the Federal Government, and lending institutions which may be inhibiting the success of such program. Such report shall include the majority and minority and dissenting views of the Advisory Board and the Board of Directors and the views of the President of the Solar Bank.

PROMOTION OF PROGRAM

Sec. 208. The Solar Bank shall promote the program established by this title by informing financial institutions and consumers of the benefits of such program and by actively seeking their participation in the program.

USE OF HOUSING AND URBAN DEVELOPMENT PERSONNEL

Sec. 209. The Secretary of Housing and Urban Development may permit the Solar Bank, to the extent deemed necessary, to utilize the services of personnel of the Department of Housing and Urban Development, including the personnel of the Government National Mortgage Association, for the purpose of carrying out the provisions of this title.

AUTHORIZATION OF APPROPRIATIONS

Sec. 210. There are authorized to be appropriated to carry out the purposes of this title not to exceed \$50,000,000 for the fiscal year ending September 30, 1980, \$150,000,000 for the fiscal year ending September 30, 1981, \$225,000,000 for the fiscal year ending September 30, 1982, \$300,000,000 for the fiscal year ending September 30, 1983, and \$400,000,000 for the fiscal year ending September 30, 1984.

TITLE III—RURAL ENERGY PRODUCTION AND USE

Sec. 301. The Food and Agriculture Act of 1977 is amended by adding at the end thereof a new title XX as follows:

"TITLE XX—RURAL ENERGY PRODUCTION AND USE

"SHORT TITLE

"Sec. 2001. This title may be cited as the 'Rural Energy Independence Act of 1979'.

"FINDINGS AND STATEMENT OF PURPOSE

"Sec. 2002. (a) Congress finds that—

"(1) the effective production and marketing of agricultural commodities are dependent upon an adequate amount of fuel;

"(2) to achieve energy independence, the United States must develop the capability to produce energy economically and efficiently from sources other than fossil fuels;

"(3) renewable resources—agricultural commodities and forest products—can, with the development of advanced technology and production and marketing facilities, become an efficient source of energy for the people of the United States;

"(4) United States farmers must have reliable sources of fuel in order to insure that the people of the United States have adequate supplies of food and fiber at reasonable prices; and

"(5) rural communities suffer inordinately from shortages of fuel.

"(b) The purpose of this title is to provide for additional research and other activities necessary for the speedy development and use of renewable resources

as an economic and efficient source of energy for the benefit of the people of the United States and to insure that United States farmers and rural communities will have reliable supplies of energy as fossil fuels become less available and more expensive.

"RENEWABLE RESOURCES ENERGY PRODUCTION LOAN GUARANTEES AND GRANTS

"SEC. 2003. (a) In order to facilitate the development of renewable resources as a source of energy, the Secretary of Agriculture shall establish projects for the production of energy from agricultural commodities and forest products through guaranteed loans as provided in this section, to finance the construction, establishment, or operation of commercial and on-farm projects.

"(b) In order to encourage the adoption of renewable resources energy production projects and techniques by farmers and rural organizations, the Secretary is authorized to make grants for the construction, establishment, or operation of demonstration projects for the production of energy from agricultural commodities and forest products. The Secretary shall establish criteria defining what constitutes a demonstration project. The total amount of grants for projects may not exceed \$250,000,000 during fiscal years 1980, 1981, 1982, 1983, and 1984, of which no State may receive more than 5 per centum.

"(c) Loans may be guaranteed and grants made under this section—

"(1) with respect to on-farm projects, to any farmer or rancher in the United States, or any on-farm, cooperative, or private domestic corporation or partnership that is controlled by farmers or ranchers and engaged primarily and directly in farming or ranching in the United States, and

"(2) with respect to commercial projects, to any domestic public, private, or cooperative organization organized for profit or not for profit, or to any individual who is a United States citizen.

"(d) No loan may be guaranteed and no grant may be made under this section unless the Secretary determines that the total energy content of the alcohol and other fuels to be manufactured under the project will exceed the total energy from petroleum and natural gas used in manufacturing the alcohol and other fuels.

"(e) The total amount of loans guaranteed under this section shall not exceed \$500,000,000 for the fiscal year ending September 30, 1980, \$750,000,000 for the fiscal year ending September 30, 1981, \$750,000,000 for the fiscal year ending September 30, 1982, \$1,000,000,000 for the fiscal year ending September 30, 1983, and \$1,000,000,000 for the fiscal year ending September 30, 1984. Not less than one-third of the total amount of loans guaranteed under this section in any fiscal year shall be allocated to projects that use wood or wood wastes.

"(f) The Secretary shall establish such terms and conditions for guaranteeing loans under this section as necessary to implement the purpose of this section and to protect the Government from loss. The Secretary may guarantee under this section the principal and interest on any loan that is made by a legally organized lending agency, except that—

"(1) such guarantee shall not exceed 90 per centum of the principal and interest of the loan; and

"(2) a guarantee fee shall be charged and collected in an amount sufficient to cover applicable administrative costs and probable losses on guaranteed obligations, but such fee shall not exceed 1 per centum per annum of the outstanding indebtedness covered by such guarantee.

"(g) Insofar as practical, not less than 75 per centum of the loan guarantees and grants under this section in any fiscal year shall be executed by May 31.

"(h) The Secretary may use any agency of the Department of Agriculture—including the Farmers Home Administration and the Agricultural Stabilization and Conservation Service—to carry out the loan and grant program under this section.

"(i) The Secretary shall coordinate the program under this section with (1) the industrial hydrocarbon and alcohol loan and grant programs under section 1419 of this Act and section 509 of the Rural Development Act of 1972, as added by section 1420 of this Act, (2) the farm loan programs under the Consolidated Farm and Rural Development Act, as amended by section 1448 of this Act, that authorize loans to farmers and ranchers for the acquisition and installation of non-fossil-energy systems or equipment that uses solar energy, and (3) the program for solar energy model farms and demonstration projects under sections 1452 through 1454 of this Act.

"(j) The Secretary is authorized to issue such regulations as deemed necessary to implement this action.

"(k) The provisions of this section shall be carried out through the Commodity Credit Corporation. In guaranteeing loans under this section, the Secretary may also use the authorities vested in the Secretary under the Consolidated Farm and Rural Development Act. Any contract guarantee executed under this section shall be an obligation of the United States and incontestable except for fraud or misrepresentation of which the holder of the contract has actual knowledge.

"(l) No loan may be guaranteed and no grant may be made under this section after September 30, 1984.

"AGRICULTURAL, FORESTRY, AND RURAL ENERGY BOARD

SEC. 2004. (a) The Secretary of Agriculture shall establish within the Department of Agriculture an Agricultural, Forestry, and Rural Energy Board (hereinafter called the 'Board') to assist the Secretary to perform the functions and duties imposed by this title. The Secretary shall be the chairperson of the Board.

"(b) The Board shall be composed of nine members, as follows:

- "(1) the Secretary of Agriculture;
- "(2) the Deputy Secretary of Agriculture;
- "(3) the Under Secretary for International Affairs and Commodity Programs;
- "(4) the Assistant Secretary for Food and Consumer Services;
- "(5) the Assistant Secretary for Natural Resources and Environment;
- "(6) the Assistant Secretary for Marketing Services;
- "(7) the Assistant Secretary for Rural Development;
- "(8) the Director of Economics, Policy Analysis, and Budget; and
- "(9) the Director of the Science and Education Administration.

"(c) The Board shall be responsible for advising the Secretary on agricultural, forestry, and rural energy needs and production potential. Specifically, the Board shall periodically determine, and report to the Secretary—

"(1) ways in which agricultural commodities and forest products and residues can be used to meet the United States energy needs;

"(2) policies and procedures to insure that production and agricultural commodities and forest products are not interrupted by energy shortages; and

"(3) energy-related problems of the agricultural, forestry, and rural sectors.

"(d) The Board shall establish and operate, in cooperation with the agencies of the Department of Agriculture and other Federal departments and agencies, wood and biomass energy demonstration centers in each Forest Service region. Each center shall provide demonstrations of—

"(1) production of fuel from wood and other biomass material;

"(2) the use of energy from agricultural commodities and forest products for industrial park, and small cities;

"(3) wood gasification for crop drying, poultry, poultry housing, and other agricultural uses; and

"(4) the direct burning of wood for industries, such as the textile industry.

"(e) The Board shall meet at least once during each six-month period, and shall submit to the Secretary by December 1 of each year a written report on agricultural, forestry, and rural energy needs and production potential, including a report on the operations of the wood and biomass energy demonstration centers during the previous fiscal year. Copies of this report shall be sent to the House Committee on Agriculture, the Senate Committee on Agriculture, Nutrition, and Forestry, the Joint Council on Food and Agricultural Sciences, established under section 1407 of this Act, and the National Agricultural Research and Extension Users Advisory Board, established under section 1408 of this Act.

"RURAL ENERGY RESEARCH

"SEC. 2005. (a) In order to facilitate the development of advanced technology and production and marketing facilities for the economical and efficient use of renewable resources as a source of energy, the Secretary of Agriculture shall develop and implement a national rural energy research program that shall include, but not be limited to, research to develop—

"(1) economical and energy-efficient fuel from agricultural commodities and forest products;

"(2) techniques for using energy derived from non-fossil-fuel sources in the production and processing of agricultural commodities and forest products, especially techniques that farmers may use; and

"(3) economical ways in which rural communities can use energy derived from non-fossil-fuel sources.

"(b) The Secretary shall establish rural energy research as a separate and distinct mission of the Department of Agriculture, and the Secretary shall increase support for such research to a level that provides resources adequate to meet the energy research needs of farmers and rural United States.

"(c) The Secretary shall conduct a study on the feasibility of alternative crop-livestock systems specifically designed to produce both foodstuffs for domestic and export markets and biomass for use in the production of energy. The study shall include, but not be limited to, determination of—

"(1) the technical feasibility of such alternative systems;

"(2) potential fuel, livestock, and grain production under such alternative systems;

"(3) the practical farm-level applicability of alternative system; and

"(4) potential economic and Government-policy initiatives to promote the development of such alternative systems.

The study shall be completed, and a report of the Secretary's findings submitted to Congress by December 31, 1981.

"RURAL ENERGY EXTENSION

"SEC. 2006. The Secretary of Agriculture shall establish a national rural energy extension program to disseminate the results of rural energy research performed under section 2006 of this title and encourage farmers and rural organizations to adopt projects for the production of energy from agricultural commodities and forest products and techniques for using energy derived from non-fossil-fuel sources. The program shall include on-farm demonstrations of techniques by which farmers may produce their own energy supplies.

"COORDINATION OF RESEARCH AND EXTENSION EFFORTS

"SEC. 2007. The Secretary of Agriculture shall coordinate rural energy research and extension activities under this title with food and agricultural research, extension, and teaching activities under title XIV of this act and, notwithstanding any other provision of law, may use the appropriations, programs, and organizations authorized under title XIV to implement the research and extension activities required under this title.

"ANNUAL REPORT

"SEC. 2008. The Secretary of Agriculture shall submit to Congress by December 31 of each year a report of the activities of the Department of Agriculture under this title during the immediately preceding fiscal year. The report shall include—

"(1) data describing loans, loan guarantees, and grants under this title;

"(2) a summary of other measures taken to achieve rural energy independence; and

"(3) the Secretary's estimate of the progress made to achieve rural energy independence.

"AUTHORIZATION

"SEC. 2009. To carry out section 2003(b) and section 2003(e), there are authorized to be appropriated such sums as may be necessary.

"EFFECTIVE DATE

"SEC. 2010. The provisions of this title shall become effective October 1, 1979."

TITLE IV—CONSERVATION BANK

SHORT TITLE

SEC. 401. This title may be cited as the "Conservation Bank Act".

PURPOSE

SEC. 402. It is the purpose of this title to encourage the use of energy conservation measures, and thereby lessen the Nation's dependence on foreign sources of energy supplies, by establishing a Conservation Bank to provide sub-

sidies for below-market interest rate loans made to owners of commercial and residential structure for the purchase and installation of energy conservation measures in such structures.

ESTABLISHMENT OF THE BANK

SEC. 403. (a) There is hereby established a Conservation Bank which shall be in the Government National Mortgage Association. The Conservation Bank shall have succession until September 30, 1984.

(b) The General Accounting Office shall periodically audit the financial transactions of the Conservation Bank, and, for this purpose, shall have access to all of its books, records, and accounts.

(c) The Conservation Bank may impose fees or charges for its services which shall be deposited into the miscellaneous receipts of the Treasury.

POWERS

SEC. 404. The Secretary of Housing and Urban Development (hereinafter referred to as the "Secretary") shall have the power to fix different levels of subsidy on loans subsidized by the Bank and the interest rates paid by borrowers on such loans, but not lower than 6 percentage points below the maximum interest rate permitted on a mortgage insured under section 203(b) of the National Housing Act, and from time to time to alter the levels of subsidy and interest rates for new loans subsidized by the Bank. In doing so the Secretary shall give consideration to such factors as he shall deem appropriate, including, but not limited to—

(1) the prevailing market rates of interest for home mortgages, home improvement loans, and commercial loans, as well as prevailing market rates of interest for Government and corporate bonds;

(2) the availability of other Federal Government incentives and subsidies for energy conservation equipment, including Federal income tax credits;

(3) the costs of nonrenewable energy resources and systems;

(4) the costs of energy conservation measures; and

(5) the levels of subsidy needed to encourage the installation of energy conservation measures in residential and commercial buildings.

SUBSIDY PAYMENTS

SEC. 405. (a) (1) The Conservation Bank shall, beginning with fiscal year 1980, make payments to financial institutions for the purpose of subsidizing below-market rate loans which are made by such institutions to owners of commercial and residential structures for the purchase and installation of energy conservation measures in such structures and which meet the requirements of this section. The repayment schedule for such loans may be graduated pursuant to regulations issued by the Secretary.

(2) For the purpose of this title, the term "energy conservation measures" shall be defined as in section 210(11) (A) through (G) and (I) of the National Energy Conservation Policy Act and section 391(2) (other than subparagraphs (E) and (F)) of the Energy Policy and Conservation Act.

(3) The amount of any payment made with respect to any loan or qualifying portion of a loan shall be a lump-sum payment and shall be in an amount necessary, as determined by the Secretary, to compensate the financial institution for the difference between making such loan at an interest rate determined by the Secretary and the yield it would have received if the loan were made at a market rate. The Secretary shall set the interest rates for graduated-payment loans so that the cost to the Government National Mortgage Association of providing a subsidy for a level payment loan equals the cost to the Government National Mortgage Association of providing a subsidy for a graduated-payment loan.

(4) The Conservation Bank may, with respect to any loan for which a subsidy payment is made under this title, require the financial institution to repay the Conservation Bank any amount to which the Conservation Bank is entitled as a result of the borrower's failure to meet his or her obligation under the loan.

(b) A payment may be made under this section with respect to a loan or qualified portion of a loan only if—

(1) the term of repayment does not exceed fifteen years and is not less than five years, except that there shall be no penalty imposed on the borrower if the loan or advance credit is repaid at any time before the term of repayment expires;

(2) the amount of such loan allocable to purchase and installation of energy conservation measures does not exceed \$5,000 per unit in the case of any one- to four-family residential structure, \$2,500 per unit in the case of any residential structure with five or more dwelling units (not to exceed \$250,000 per loan), and \$200,000 in the case of any commercial structure;

(3) the security for the loan meets the requirements of the Government National Mortgage Association; and

(4) the energy conservation measures to be financed will be purchased and installed after the date of enactment of this title, except as provided in section 409.

(c) At least 75 per centum of the amount of subsidy payments made under this section in any year shall be for the purpose of assisting the financing of energy conservation measures in residential structures.

PENALTIES

SEC. 406. Any person who knowingly makes any false statement or misrepresents any material fact with respect to any loan assisted under this title shall be fined not more than \$10,000 or imprisoned not more than one year, or both.

REPORT

SEC. 407. The Secretary shall report to both Houses of Congress within nine months from the date of enactment, the market penetration of assistance provided by the Conservation Bank. If market penetration is less than that necessary to expend the funds provided in the title, the Secretary shall recommend alternative financial delivery systems including the involvement of nonprofit energy conservation and development finance corporations dedicated to the purposes of the title. The report shall also include a detailed accounting of the activities of the Conservation Bank.

PROMOTION AND COORDINATION

SEC. 408. The Secretary and the Government National Mortgage Association shall promote the program established by this title by informing financial institutions and consumers of the benefits of such program and by actively seeking their participation in the program. The Secretary shall also assure effective coordination with promotion and assistance programs in the Department of Energy.

RETROACTIVITY

SEC. 409. Consumers who borrowed money from a financial institution for the purchase and installation of energy conservation measures after September 13, 1979, shall be eligible for assistance by the Conservation Bank if such loan is refinanced after the date of enactment of this title.

RULES

SEC. 410. The Secretary may issue rules to insure the quality and effectiveness of the conservation measures subsidized under this title.

LOW- AND MODERATE-INCOME HOUSING

SEC. 411. The Government National Mortgage Association shall implement the authority provided under section 242 of the National Energy Conservation Policy Act and shall coordinate the program under such section with the Conservation Bank.

FUNDING

SEC. 412. There are authorized to be appropriated to carry out the purposes of this title not to exceed \$150,000,000 for the fiscal year ending September 30, 1980, \$850,000,000 for the fiscal year ending September 30, 1981, \$1,700,000,000 for the fiscal year ending September 30, 1982, \$1,700,000,000 for the fiscal year ending September 30, 1983, and \$1,700,000,000 for the fiscal year ending September 30, 1984.

The Chair recognizes the Senator from Washington.

Mr. JACKSON. Mr. President, today the Senate begins its consideration of S. 932, legislation recommending a broad array of programs to

help reduce the Nation's increasingly dangerous dependence on foreign oil imports. It is a bill to help the United States regain control over its energy and economic future. To overcome the threat to our national security posed by our present dependence on highly insecure, and outrageously priced foreign oil supplies. The economy of the United States and of the entire free world has been undermined and thrown into disarray by the oil pricing practices of the OPEC countries. The implications for our future national security are nothing short of alarming. Strong immediate action is needed to lay in place programs to hasten the development of the Nation's own massive domestic energy resources in order to free ourselves from this gravely dangerous situation. The legislation now before the Senate will move us in that direction, and there is no higher priority facing the Congress.

As reported by the Energy Committee, S. 932 calls upon the Congress to mount a major national program to bring about the commercialization of the Nation's enormous coal, oil shale, tar sand, and biomass resources for the production of synthetic fuels. The ultimate goal is to reduce oil imports by 1.5 million barrels a day by 1995. The bill would make available to the private sector the financial assistance that must be forthcoming from the Government if we are to bring on line a synthetic fuels industry to harness these massive domestic resources.

It also provides financial assistance to stimulate the production of alcohol and other fuels from biomass. It calls for major new energy conservation initiatives including a Conservation Bank to provide low-interest energy conservation loans, and a conservation grant program to be administered by the States. It provides financial assistance and risk insurance to accelerate the development of our geothermal energy resources. And it provides important new programs, including a Solar Energy Development Bank, to promote the commercialization and broader use of our renewable energy resources.

In sum, Mr. President, the Energy Committee bill recommends a balanced, far reaching effort to address the Nation's short- and long-term energy needs through an integrated program of production and conservation initiatives.

As the Senate knows, S. 932 was jointly referred to the Energy Committee and the Committee on Banking on July 9. The bill has been jointly reported to the Senate, and the two committees are in disagreement respecting the approach the Congress should take to bring about the commercialization of the Nation's synthetic fuels resources. We differ concerning synthetic fuel production goals, concerning the Government mechanism that should be used, and the level of funding needed to bring a full-scale synthetic fuels production industry on line. And we differ on a variety of other matters. The Energy Committee recommends a broader, more comprehensive bill. The Banking Committee, a more limited program.

This means, of course, that the Senate is confronted with alternative programs and must choose the one it feels is best for the Nation.

In my judgment, the overriding questions facing every Senator in this debate—and every concerned citizen will be listening for the answers—have to do with the magnitude of the commitment we are prepared to make to free the Nation from its dependence on foreign oil.

Are you ready to make the kind of national commitment the Nation needs to rid itself of the bondage imposed by OPEC—the economic bondage—the increasing threat to our national security?

Are you prepared to mount the major national program it is going to take to create an industry capable of bringing on line our enormous reserves of coal, oil shale, tar sands and other resources for the production of synthetic fuels in order to back off OPEC oil and regain control of America's future?

Or is it to be "business as usual" as some seem to suggest.

"Are we going to leave the present energy emergency solely in the hands of the major energy companies?" The answer to this one has to be a resounding "No." neither the American people nor the Congress is about to tolerate leaving the Nation's energy future solely to the promise of "big oil".

The people are demanding leadership from Congress and the executive branch. There must be a commitment by Congress to match the emergency.

The Banking Committee proposes that the synthetic fuels commercialization program be handed over to some undefined Federal agency to be handled among its other duties. The Energy Committee and the President recommended that the task be placed with a special-purpose, mission-oriented Synthetic Fuels Corporation. This is a paramount issue that will be decided early on in this debate. It will be a test of the measure and quality of our commitment to a national synthetic fuels program. Is it going to be business as usual or are we willing to establish the kind of mechanism that is essential to get this job done?

The Synthetic Fuels Corporation is hardly an unprecedented notion. Over the years, Congress has established successful Government corporations to carry out discrete, relatively short-term programs such as this one. Government corporations were used to foster our synthetic rubber industry and to facilitate our wartime mobilization efforts. The corporate mechanism has worked in the past and will work here.

Every Senator has to ask himself how placing this program inside the bureaucracy would, as the Banking Committee suggests, "minimize Federal interference"? The Department of Energy—the most logical candidate for the job—has been unable to bring even one commercial size synthetic fuels project on line despite billions of expenditures and is hardly noted for a handsoff policy toward industry. The Department's responsibilities are essentially regulatory and research and development in nature. And I daresay that few Senators will disagree that it has its hands full in recent years.

DOE will necessarily play a very important advisory and technical assistance role to the Synthetic Fuels Corporation, but to suggest that its direction of this program would minimize Federal interference is a line of reasoning that is hard to follow. In fact, the argument runs in the opposite direction. If we are to minimize Federal interference and delay, we clearly need a new, financially oriented organization—one that will be fully accountable to the people and Congress, but free of the institutional and bureaucratic restraints that pervade DOE and the rest of the executive branch.

The Banking Committee also suggests that the Synthetic Fuels Corporation is somehow inconsistent with a phased approach to a synthetic fuels commercialization program. But here, again, their reasoning is hard to follow. There is general agreement that the program should proceed in stages. That is precisely what the Energy Committee bill does. During phase I, the Corporation will be restricted to

identifying and financing a limited number of synthetic fuel commercialization projects. The emphasis will be on diversity—the commercial-scale demonstration of a variety of ready technologies using a variety of resource bases.

The Banking Committee also takes issue with the funding authorization recommended for the Synthetic Fuels Corporation. It suggests that the Energy Committee bill entails an irreversible authorization of \$88 billion for the program. This is not the case at all. Neither the Energy Committee nor the administration recommends any such irreversible commitment. The Energy Committee proposes a conditional authorization for the overall program—to become available to the Corporation in stages, subject to the appropriations process.

Of the total, \$20 billion is made available immediately for the phase I program—subject again to action by the Appropriations Committee. The balance of the authorization would not become available until after an acceptable comprehensive strategy has been submitted to Congress, and until the additional funding has been appropriated. Contrary to the Banking Committee's suggestion, there is nothing at all irreversible about the broader authorization. We are talking about a present commitment of \$20 billion—not \$88 billion.

And, Mr. President, it is an investment, it is not an expenditure. We are hopeful that these programs will work and the money, of course, will be paid back out of the sale of product.

There is no question that even \$20 billion is a large commitment, but it is certainly not excessive. In fact, this kind of commitment has already been made by the Senate. The recently passed Interior appropriations bill includes \$20 billion for alternative fuels programs subject to authorizing legislation and further action by the Appropriations Committee.

Mr. President, I urge every Senator to keep this matter in perspective. According to current estimates, the United States may pay as much as \$70 billion for oil imports in 1980, and substantially more in years to come. And we will suffer the consequences in every facet of our economy. By comparison, a present \$20 billion commitment to a multiyear national effort to develop our own domestic energy resources is eminently reasonable.

This level of commitment is necessary to backstop American industry's commercialization of synthetic fuels. The projects we are talking about require extraordinary large investments—approximately \$3 billion a project in some cases and up to 7 years for construction. Industry needs the backing of the government if it is to generate that kind of private capital. Such investments will not be forthcoming unless we are willing to pledge the Nation to this kind of commitment.

Again, the fundamental question to be answered by each Senator is whether we are ready to make the kind of national commitment that is needed to try to overcome our present bondage to OPEC and regain control of our energy future and national security.

Finally, Mr. President, I invite each Senator's attention to the history of our synthetic fuels policy set forth at pages 126-129 of the Energy Committee's report. The subject is hardly new to the Energy Committee or to the Senate. The promise of synthetic fuels has occupied our attention since the O'Mahoney-Randolph Synthetic Fuels

Act was passed in 1944. It has figured prominently in every major plan for energy self-sufficiency developed over the years.

In the early 1970's, I introduced legislation to establish a Coal Gasification Development Corporation. It was opposed by the then-administration and no final action was taken.

In the Federal Nonnuclear Energy Research and Development Act of 1974, we authorized a broad program to foster commercial-scale demonstration of coal gasification, oil shale, and coal liquefaction.

The Senate has consistently supported efforts to achieve a national synthetic fuels production capability. In 1975, we approved the Synthetic Fuels Act to authorize \$5 billion in loan guarantees for new energy technologies—only to have the provision rejected by the House.

The Department of Energy has been given authority to guarantee loans, to provide price guarantees, purchase agreements, and the authority for Government-owned/contractor operated synthetic fuel projects.

But none of these authorities has produced any major demonstrations of synthetic fuels technologies.

At every step of the process, there has been general agreement on the need for actual operating experience from several commercial scale synthetic fuel plants.

Both Republican and Democratic administrations have recommended substantial assistance to advance such programs.

Despite all this, we have failed to bring even one such project on line. We have lagged far behind other nations, some of which have far less economic ability, fewer resources, and, perhaps, far less urgent needs for new energy resources.

Canada is developing its tar sands.

In fact, they have two large plants in operation.

South Africa is greatly expanding its coal liquefaction capability.

China is producing a portion of its oil requirements from shale.

Instead, we are still immersed in largely academic arguments over the potential merits, hazards, and economic viability of synthetic fuels.

Continuing arguments that further delay will improve the technological basis for commercial demonstration, continuing reluctance to make the necessary financial commitment, and the idle hope that industry will do the job on its own have sapped our will to proceed.

Our programs to explore this vital energy option have been stifled in the annual budgetary process and by the vagaries of bureaucratic decisionmaking.

Mr. President, I say to the Senate that it is time to put away our indecision. It is time to recognize today's energy reality and the hazard to our future national security. It is time to take the bull by the horns and get about the business of bringing commercial synthetic fuel projects on line. And the American people are not going to be satisfied by half a program.

Mr. President, as I indicated, and to sum up, in 1975 and again in 1976, by an overwhelming vote the Senate voted to go forward on a synthetic fuels program. The program was killed in the House in both instances by reason of the action taken by extremes on the left and on the right.

We could be producing synthetic fuels today had those measures not been killed.

The Senate Energy and Natural Resources Committee has an outstanding record. We held hearings on the Energy Mobilization Board back in 1975. We had to forego acting on that bill when we found we did not have anything to mobilize because the synthetic fuels program had been killed in the House.

Mr. President, this measure is before us once again. I do not see how any Senator can go back to his constituents, especially in the environment that many of us have been warning about for months and for years, namely, ever-escalating prices, and a more fragile source of supply, and say to his or her constituents, "Well, we voted down this very large undertaking in the field of synthetic fuels."

This is one program that we must begin, and it will only, with all of this investment, make available 1½ million barrels of oil a day by 1995.

Mr. President, we must send a signal to OPEC. Look at what is going on at this very hour in Iran. How far do we have to go toward a catastrophe to bring the message home to the American people that the oil we are getting—over 8 million barrels a day—comes from highly fragile, highly unreliable, highly uncertain sources? How long do we have to repeat this refrain? Clearly—clearly—we face cutoffs.

How can any Member of this body go home and face his constituents and when they ask "Well, what did you do about the energy problem?" say, "Well, I voted against all this."

If there is anything we can do to make a beginning, it is in the area of synthetic fuels. In this field, this Nation possesses the greatest abundance of coal and oil shale of any nation on the face of the Earth.

This is the challenge to the U.S. Senate. Are we going to go forward with a real program or are we going to offer a puny program? Are we going to do nothing more than spend more time on research and development?

I can see the people crying out as they wait in oil lines, "Well, that Senator simply voted for more research and development."

Is it not time we produced? Is it not time we get something done in the midst of this crisis? I think the public has the right to call upon the U.S. Senate to produce, and produce here and now, by adopting this legislation.

Mr. President, this legislation is a result of a truly bipartisan effort. We have dealt with the problem and not with petty partisan issues.

I want to especially thank the ranking minority member (Mr. Hatfield) who, during all of this was ably assisted on his side by Senator Domenici, in particular, and all of his colleagues, in trying to put together a bill.

The Senator from Louisiana (Mr. Johnston) has been outstanding in conducting the hearings and the markups for me, as chairman. I cannot thank him enough for his work, and the support he received on the other side of the aisle in crafting together what I think is a bill that makes a lot of sense.

One last word of warning: we have the old coalition again. We have the people on the right and the people on the left, one group saying it is socialism and another that it is a sellout to big business.

Look at the list of those who are participating. We can see that they are more concerned, Mr. President, about an ideological posture they

want to maintain than they are in solving the problem that this Nation faces.

Mr. President, this Nation is in the worst economic peril since the Great Depression of the 1930's. I say that as we look at the spot price of oil last week, when it touched \$48 a barrel, when we find that no longer are they moving oil into the spot markets solely to use it as a market testing device, but they are using it more and more to get a higher price.

The effect of this on our economy is all pervasive. It will be devastating in terms of the Consumer Price Index, Mr. President. It will be devastating in terms of interest rates, because the Fed is embarked on a policy of orchestrating interest rates with the inflationary rate. As the price of oil continues to go up and we do nothing about it, interest rates go right up with it.

Many of us have been warning about this over a long period of time. We are now at the point of reckoning. I am hopeful that the Senate will recognize its responsibilities and its duties to vote for a sensible bill, a realistic bill, a bill that will embark this Nation on a program of capital investment.

This is not expenditures. It is an investment which will bring great profits and dividends to the American people.

No other course of action is available to us at this time. Only by supporting the bipartisan effort here of the Energy Committee can we begin.

Mr. President, I shall ask Senator Johnston for most of the time to carry the load on our side managing this bill. We have all of the other titles in the bill that are of tremendous importance. We have a massive program in connection with the gasohol effort, in which Senator Church and the distinguished Senator from Nebraska, who is now presiding, have taken a keen interest. We have a very large program on solar energy. We have a very large program on conservation.

This is an omnibus bill to answer the problems that this Nation faces.

Mr. President, over the past 5 months the Committee on Energy and Natural Resources has given careful attention to a broad array of potential initiatives for dealing with the increasingly threatening energy situation that confronts this Nation.

Since the 1973-75 embargo, our oil imports have increased from 6.3 million barrels per day to over 8 million barrels per day. Today we rely on imports for almost 50 percent of our oil supply—a statistic with alarming economic, geopolitical and national security implications. Much of these imports come from countries that have a potential for political instability and that are militarily vulnerable. This poses an unprecedented threat to our national security. Our bill for imported oil contributes heavily to our balance-of-payments problem and puts pressure on the dollar in international markets. Our dependence on foreign oil also exports jobs and potential profits away from American business.

The long lines at the gasoline stations of this past year and the continuing concern about the supplies of heating oil for the winter are merely the most apparent signs of what the American people have come to know well—that we are dangerously dependent upon imported oil. And, I regret to say, Mr. President, that the prospect

for an improvement in this situation—without bold action by the Congress and the President—is, indeed, remote.

America has a massive capital investment that is dependent upon liquid fuels. Department of Energy forecasts have projected that, in the absence of a significant program such as that proposed by the Senate Energy Committee, oil imports might rise as high as 12 million barrels of oil per day by 1990. But supplies are scarce, and the level of foreign oil production is not within our control. Oil imports require our bidding against our principal trading partners which drives up the price of oil for us and for them. In 1980, the United States is likely to pay as much as \$70 billion for imported oil. This cost will be substantially higher in the years to come. The toll in terms of real wages of American workers and the standard of living of our people may be very large.

The 1973-74 oil price increases helped send the world into its sharp postwar recession—a recession in which unemployment in the United States shot up nearly 3 million. The Council of Economic Advisers estimates that the increase in OPEC prices from December 1978 to June 1979 will raise U.S. unemployment next year by 800,000 persons. We do not have the luxury of contemplating business as usual. We must reduce our appetite for imported oil.

During the 1980's and 1990's, major improvements in our energy supply and demand balance are possible. Private sector actions, assisted by the Government where necessary, can increase the efficiency of energy use in all sectors, shift flexible uses from oil to coal and to potentially inexhaustible and renewable sources, and develop new oil and gas production to slow or offset the current decline. Indeed, we currently have in place a number of programs pursuing all these approaches—through research, development and demonstration, regulation and financial incentives—and we are now proposing significant additional measures to accelerate them.

The conservation response has been encouraging. Industry has reduced average energy use per dollar value of product over 15 percent since 1973. Automobile mileage per gallon has turned upward to meet the mandate; now the market has begun to demand even better fuel economy. Homeowners have responded. The Department of the Treasury reports that 6 million taxpayers claimed the conservation tax credit on 1978 returns, reporting \$4.2 billion in energy-saving investments.

But the magnitude of the problem and the diversity of the American economy and our energy needs dictate increasing supply as well. We need additional liquid and gaseous fuels to take advantage of the massive capital investments already in place, the unique needs of our transportation and building sectors, and the environmental advantages of such fuels. In addition to offsetting the decline in production of conventional oil and gas by developing new fields, we need to begin taking advantage of the truly massive resources we have in coal, oil shale, and biomass.

The oil contained in U.S. shale alone dwarfs the Middle-Eastern oil reserves. And our coal is enough to satisfy electrical generation, direct process heat, and synthetic fuel needs for well over a century.

The bill reported by the Energy Committee is a comprehensive effort to address our national energy problems. The bill establishes a Synthetic Fuels Corporation, which will draw upon America's vast

reserves of energy and upon private enterprise to meet its goal of the production 1.5 million barrels per day of oil equivalent by 1995. These synthetic fuels will come from coal, oil shale, tar sands and biomass. The bill also establishes a separate program to accelerate domestic production of alcohol for use as motor fuel. The bill will require the President to set targets for this Nation's production and consumption of energy. A separate title supports the conservation of energy in major sectors of our economy. Geothermal energy, renewable resources and wind energy are the targets of new initiatives to enable us to improve our energy supply situation. This bill also provides for a Solar Energy Development Bank.

A principal element of the Energy Committee bill is the creation of a corporation with a life of 12 years to carry forward the synthetic fuels program. We believe that an effective production effort for synthetic fuels requires this type of mechanism, and not just another business as usual DOE program. Our approach is not unprecedented. The Federal Government has successfully established corporations to carry out discrete, relatively short term efforts such as this before. For example, corporations have fostered our synthetic rubber industry and have facilitated our wartime mobilization efforts. The corporation mechanism has worked and will work here.

By comparison, the Banking Committee version of S. 932 would establish a new corporation to carry out a solar energy program, as well as a new Conservation Bank. It would create a new board within the Department of Agriculture to establish energy projects using agricultural commodities and forest products as the resource. It would not, however, create a corporation to administer the limited demonstration program it authorizes for synthetic fuels. Instead, it requires that the program be carried out by an agency of the executive branch.

The Synthetic Fuels Corporation proposed by our committee would have a single purpose and focus, as well as a business perspective and a high degree of independence and flexibility. It would act quickly and decisively and to attract and keep the people best qualified to get the job done. Furthermore, the Corporation will be accountable to the Congress, without being encumbered with the frustrating gauntlet of administrative complexities that today confound and delay Federal agency action.

The use of the corporate format is the key to developing commercial scale production quickly. The Energy Committee proposal is not simply an experimental program, as is the Banking Committee version. The synthetic fuels technology exists today. We need to provide, efficiently and expeditiously, the financial incentives necessary to bring synthetic fuels on line faster than the economics of the marketplace would otherwise permit.

The committee has also required that within 3 years of its establishment, the Corporation is required to submit to the Congress its proposal for a comprehensive strategy to achieve the national synthetic fuels production goal of 1.5 million barrels per day by 1995. The committee has altered this goal for the corporation from what the President initially proposed in order to reduce the production level and to increase the period over which the goals are to be achieved. The proposed comprehensive strategy is subject to congressional approval. Prior to the adoption of the strategy, the bill authorizes the Corpora-

tion to provide up to \$20 billion in financial assistance to private industry to stimulate the production of synthetic fuels from a diverse range of technologies and feedstocks. Of this \$20 billion authorized, \$1 billion is set aside for biomass projects, which will consist mostly of large scale gasohol projects.

Several points need to be made with regard to this \$20 billion authorization and the \$68 billion that could be made available in later phases. First, this is an authorization. Funds would still have to be appropriated to the Corporation, but we hope that the recent actions of the Congress in the budget resolution that the Interior and Related Agencies Appropriation Act presage a large commitment in that regard. Second, the \$20 billion authorized is the maximum program level permitted for the Corporation for this initial phase. It is not the amount of money that the Corporation will expend during this initial phase. Indeed, the outlays during this initial phase will be quite low and will remain low if world oil prices continue to increase.

The \$20 billion is the maximum level of program activity authorized for the Corporation and the maximum possible exposure of public funds during this initial phase. It works this way. If the Corporation determined to guarantee a loan for a synthetic fuels plant, it could guarantee up to 75 percent of the costs of the construction of the plant. If the amount guaranteed were \$2 billion, the Corporation would, as a result of making that guarantee, have reduced its program level by \$2 billion. If this were the first action of the Corporation, the Corporation during this first phase would have \$18 billion of financial assistance remaining. If the loan is successfully repaid by the borrower so that the Corporation never has to pay a dollar on the loan guarantee, the program level remains at \$18 billion in this example, even though the Corporation's liability is at an end and not a dollar has been expended.

We believe that this is the most fiscally responsible procedure we could have to insure that we fully understand the commitment that the Government has made. It will insure that we never permit the obligation of the Government to exceed a level that the Congress has specifically approved and can continually monitor.

This approach differs substantially from the approach of the Banking bill. The Banking bill would permit \$3 of loan guarantee to be made for each dollar authorized. The Banking Committee bill would have the effect then, if all financial assistance were provided in the form of loan guarantees, of permitting as much as \$9 billion to be guaranteed, not \$3 billion as the authorizing language implies.

Furthermore, the Banking bill permits the funds initially made available to be "rolled." In other words, if in the example where \$2 billion was guaranteed but no outlays were made by the Corporation because the borrower paid off the loan, the Banking bill would permit the \$2 billion to be used again to provide additional financial assistance without further congressional approval. Under this procedure, the overall level of program activity may be considerably larger than the bill suggests, but is never directly authorized by Congress or approved in appropriation acts. Furthermore, it is too indefinite to represent a Federal commitment or to provide industry with a measure of the size of the effort which is expected.

The \$20 billion authorized under the Senate Energy Committee version expresses the maximum financial exposure that the Corporation could commit to without further congressional approval.

Although the \$20 billion level is a sizable commitment, it is a relatively small investment when viewed in terms of our current expenditures for imported oil—estimated to be \$70 billion in 1980—and in terms of the years over which the financial assistance may be available. And remember, we are not talking about outlays, we are talking primarily of providing financial guarantees or contingent liabilities.

Furthermore, it is important to recognize that these synthetic fuels plants are extremely expensive and require an expenditure of capital and a degree of risk that private industry has not yet found worth taking. These plants may cost as much as \$3 billion each and will take as long as 7 years before they produce fuel. It will require, even in this initial phase, a program level of close to \$20 billion to produce results; to demonstrate to industry our firm commitment in this effort; and to show the American people and our foreign partners and adversaries our resolve to meet our energy needs and reduce our foreign dependence.

Mr. President, while the Synthetic Fuels Corporation recommended by the committee builds upon the program proposed by the President last summer, it also differs markedly from the administration's proposal in several important aspects.

First, we have not accepted the proposal for a one shot authorization for an \$88 billion program. Instead, we have provided for a carefully phased effort, with an authorization for a first phase limited to \$20 billion which itself would be subject to the usual appropriation process. The Corporation could not expose the taxpayers to a dollar of contingent liability beyond that level without congressional approval of a second phase strategy.

Second, while removing much of the administrative redtape that hamstrings conventional Government agencies, we have gone well beyond the administration in insisting on accountability. Various provisions of the bill require open meetings, public access to information, competitive bidding, annual audits by a public accounting firm and avoidance of conflicts of interest. Coupled with the thoroughgoing GAO authority to audit the Corporation that we have insisted upon, the Corporation will be held appropriately accountable.

The Senate Energy Committee bill provides \$1.65 billion of financial assistance to support the production of alcohol and other fuels from biomass. The Synthetic Fuels Corporation will be chartered to provide \$1 billion of the \$1.65 billion to support major production, particularly for alcohol fuels facilities of 30 million gallons per year or larger. The funds provided the Corporation would be able to assist 25 to 75 such plants, depending on the amount of support each needs to be economically viable. Gasohol, with assistance provided by this bill, is economic. The bill also provides \$650 million to be administered by a special office, established in the Department of Energy, with a Director appointed by the President. This office would be able to use price supports purchase commitments, and loan guarantees to support specifically gasohol production and to support innovative technologies. At least one-third of the funding must be used to support small scale projects, such as "on the farm" applications. The bill's goals are to

reach a minimum of 60,000 barrels of alcohol production per day (900,000,000 gallons per year) by 1982, and to replace 10 percent of all gasoline by alcohol by 1990.

This bill will provide the largest stimulus of alcohol production ever attempted in this country.

Title III of the bill requires the President to submit annually to Congress a set of energy production and consumption targets for specific forms of energy for the years 1980, 1985, 1990, 1995, and 2000. The purpose of this title is to force Presidential action and congressional debate and votes on the Nation's energy goals once each year. The targets and goals so determined will be the objectives which the Department of Energy will strive to achieve.

Title IV provides a set of major new conservation initiatives and the expansion of present conservation programs. Conservation is our primary source of alternative energy in the near- and mid-term. Using existing technology, we can achieve savings of 20 to 30 percent of our residential, commercial, and industrial energy use if we can accelerate conservation investments. Such investments will reduce fuel costs, ease pressure on our import balance—with all the inherent benefits to national security—and will result in a cleaner, safer environment. This title will accelerate individual and business investment in conservation measures by closing the gaps in our current conservation programs. It is a balanced approach that targets the kinds of incentive most likely to be attractive to each conservation investor group.

Increased initial costs are a significant barrier to increased conservation activity. While tax credits have elicited a response among upper income Americans, less affluent citizen and small businesses do not have the savings or credit available to make conservation investments. The Energy Conservation Bank, provided by this title, will alleviate this problem for middle income groups by providing low interest, long term financing. As a result, homeowners' cash flow will be immediately larger due to the reduction in fuel bills. For lower income owners and renters who are often not in a position to borrow money, direct cash grants for a portion of their conservation expenditures will be provided. The loan and grant programs total \$4.8 billion over the next 5 years.

Since creation of the original Residential Conservation Service, it has been demonstrated that one-step conservation services like those provided by TVA and Oregon utilities are attractive and effective. This bill removes the existing prohibition on utility financing of conservation, while providing a safeguard to maintain competition through a requirement that all utility sponsored work be performed by subcontractors. The bill also expands the Residential Conservation Service to include multifamily residences and small businesses, two areas where substantial fuel savings can be gained. The bill will fund a State program to train and certify energy auditors to insure the availability of competent personnel able to assist consumers in their energy conservation efforts.

In addition to these incentives to homeowners, renters, and commercial businesses, the bill provides for demonstrating innovative conservation approaches and for implementation of sophisticated "house doctor" auditing approaches. This bill will allow States and utilities,

if they so desire, to test the appropriateness and effectiveness of such measures against more conventional conservation practices.

The bill provides that, at the time a residence is sold, a seller must make a good faith effort to provide an energy audit to the buyer. This provision will enable buyers to understand the energy efficiency of the house and thus make a more informed buying decision. The legislation is qualified to avoid potential title and conveyancing problems.

Lastly, conservation needs of the industrial sector are addressed by substantially increasing the funding for industrial research and development conducted by the Department of Energy.

Title V of the bill is included to expand support for the development of the Nation's geothermal resources. While much progress has been made under the aegis of the Geothermal Steam Act of 1970, the Geothermal Energy Research, Development, and Demonstration Act of 1974, and the 1978 energy legislation, these statutes must be augmented so that progress toward full utilization of this resource will accelerate. This title provides financial assistance through the form of forgivable loans of up to 50 percent of the costs for geothermal exploration and, in certain cases, up to 90 percent for feasibility studies for geothermal projects. These loans will bear interest at below market rates. In addition, the Secretary of Energy is directed to establish a geothermal reservoir insurance program to afford protection to the developers of geothermal reservoirs. Further mandates of this title include consideration of geothermal applications for each new Federal building, a commercialization study and certain changes in present geothermal loan and loan guarantee programs. Further, the title changes certain portions of the Public Utility Policies Act of 1978 to expand advantages to geothermal projects.

Title VI is intended to promote the commercialization of renewable energy resources by providing for important new initiatives. Among other things, title VI will mandate cost effective capital investments in renewable energy systems in new and renovated Federal buildings. It will also provide for a coordinated and augmented program of information dissemination and outreach services to reach the public more effectively. It will supply much needed information about the practical use of renewable energy resources. The title would also require the Department of Energy to establish new programs to promote energy self-sufficiency, as well as insure that small business is given a generous opportunity to participate in the programs that the title will create. Finally, title VI contains amendments to the Federal Photovoltaic Utilization Act to expedite procurement of solar photovoltaic cells to generate electricity at Federal facilities.

Title VII is designed to expand the Department of Energy's wind demonstration and commercialization activities by, among other things, providing financial assistance. This includes loans to subsidize incremental costs of wind systems over conventional energy systems. It requires the Department of Energy to make a large procurement of cost effective wind systems. The systems purchased will be used by Federal agencies and are expected to stimulate expansion of the wind industry, thus resulting in economies of scale and lower prices. The Department is also required to study and report on the potential for use of wind systems at specific Federal facilities and to monitor

and assess the performance of wind systems. The overall goal of this title is to spur faster development, commercialization, and installation of systems designed to produce energy from wind, a renewable resource which is virtually untapped at present.

Title VIII establishes a Solar Energy Development Bank. The primary purpose of the Bank is to provide interest subsidies for loans and mortgages to finance the purchase and installation of solar energy systems. Solar energy systems eligible for assistance must carry an approved warranty and must meet criteria established by the Department of Housing and Urban Development (HUD) in consultation with the Department of Energy. These systems include residential and commercial solar systems, wood burning appliances, solar process heat systems, solar electric devices, and earth shelters.

The Solar Bank, which will have 5-year life, will be lodged in the Government National Mortgage Association in HUD. The Bank's management will be advised by a Presidentially appointed Advisory Board composed of representatives of the general public, the scientific community, the solar energy industry, the financial community, and the low-income population. The Bank will have the power to provide payments to financial institutions. These in turn will offer subsidized loans to owners or builders of commercial and residential buildings for the purchase and installation of solar energy systems. The Bank will set on interest subsidy of up to 6 percent. It will consider the level of existing interest rates, the availability of other Federal incentives, the costs of nonrenewable resources and systems, the costs of the desired systems, and the level of incentives necessary to induce solar investments. At least 60 percent of all subsidy payments must assist homeowners and at least 5 percent assist low income persons.

The authorizations of Bank appropriations are the following: \$50 million for fiscal year 1980; \$150 million for fiscal year 1981; and \$275 million for fiscal year 1982.

Title IX extends the expiring titles of the Defense Production Act of 1950, as amended, for 2 years.

In summary, Mr. President, S. 932 as reported by the Energy Committee represents a balanced and far-reaching effort to address both our short- and long-term energy needs through an integrated series of supply and conservation initiatives. It is the product of long and careful study by our committee. I strongly urge this body to approve this package so that we can put in place a program that truly comes to grips with the energy realities facing the Nation.

Mr. President, I ask unanimous consent to have printed in the RECORD letters received from the Secretary of Energy and from the American Gas Association relating to this bill.

There being no objection, the letters were ordered to be printed in the RECORD, as follows:

THE SECRETARY OF ENERGY,
Washington, D.C., November 5, 1979.

Hon. ROBERT C. BYRD,
U.S. Senate,
Washington, D.C.

DEAR SENATOR BYRD: As the Senate begins consideration of the differing versions of S. 932 reported by the Committee on Energy and Natural Resources and the Committee on Banking, Housing and Urban Affairs, I want to convey the Administration's strong support for the basic elements of the Energy Committee's version and to urge that the Senate act favorably on it. The Energy Com-

mittee's bill, reported after extensive hearings and weeks of markup, is an integrated bill that covers the short-term—with conservation, the mid-term—with gasohol, and the longer-term—with synthetic fuels, solar energy, and geothermal energy. It is, in our view, a measure far superior to that reported by the Banking Committee.

The centerpiece of the Energy Committee's bill is the establishment of the Synthetic Fuels Corporation to provide, on a phased basis, financial assistance to the private sector to stimulate the commercial production of synthetic fuels from coal, oil shale, tar sands and biomass. We share the Committee's view that a Congressionally chartered corporation, made appropriately accountable but freed from the administrative and personnel complexities which today confound and delay actions by Federal agencies, is essential to a successful synthetic fuels commercialization effort. This Corporation will bring aggressive and expert management and business principles to bear on all aspects of the program. The Banking Committee's bill does not provide for a corporation, but instead contemplates a "business-as-usual" approach. This approach simply will not produce a timely fashion the results the Nation urgently requires.

As drafted by the Energy Committee, funding would be provided to the Corporation in future appropriation acts. The initial phase of the program would make available \$20 billion for all forms of financial support, a funding level the Senate recently approved in principle during floor action on the Interior and Related Agencies appropriation bill (H.R. 4930). The \$20 billion for this initial phase would be the total exposure of the government.

Actual outlays would be spread over several decades and in total would probably be substantially lower than \$20 million. Outlays would initially be low and remain relatively low if the world price of oil continues to increase. Funding after the initial phase would also be subject to appropriation acts as well as the submission by the corporation to the Congress of an acceptable strategy for providing further financial support.

The Energy Committee has also developed an aggressive residential conservation proposal. Title IV of the Energy Committee version of S. 932 proposes residential conservation actions that promise to yield significant savings of oil and gas beginning immediately. It provides major conservation incentives in the form of loan subsidies to households and businesses, which should induce substantial energy-saving investments. By permitting utility financing and arranging for installation of conservation measures, it allows utilities to offer a "one-stop" conservation service which has already proven successful in several states. It expands the Residential Conservation Service to provide energy audits of apartments and small businesses, and provides funds to the states to train and certify energy auditors, protecting consumers and strengthening the delivery of conservation information. We believe that the bill would be strengthened significantly by limiting financial incentives to loan subsidies which stimulate larger conservation investments and by more tightly focusing the loan subsidies on those families with incomes below the median, whose need is greatest and who have historically been less able to make energy-saving investments.

Title II of S. 932, as reported by the Senate Energy Committee provides a mechanism and funding to stimulate the aggressive development of gasohol. It focuses on production from plants smaller than those the Synthetic Fuels Corporation would best support (Title I authorizes a billion dollars for synthetic fuels from biomass). We strongly support production of gasohol, which can help enhance our supplies of unleaded gasoline even if the near-term. Together with the Synthetic Fuels Corporation, this title would contribute significantly to producing the motor fuels we need for our mobility.

The Senate Energy bill contains other important initiatives—establishment of a solar bank and other programs for renewable resources—which we believe make it a comprehensive and effective measure for contributing materially to the solution of our energy problems.

Although a bill of this breadth will unquestionably require adjustments to make it fully effective, we vigorously endorse its principal elements and look forward to working with the Senate as it considers this measure.

When coupled with the establishment of an Energy Mobilization Board and the enactment of a windfall profits tax, favorable Congressional action on the Energy Committee's version of S. 932 will put in place the basic elements of an urgently needed program for dealing with our deepening energy crisis.

Sincerely,

C. W. DUNCAN, Jr.

**AMERICAN GAS ASSOCIATION,
Arlington, Va., November 2, 1979.**

The American Gas Association (A.G.A.), representing 300 natural gas distribution and transmission companies serving over 160 million U.S. customers in all 50 states, and accounting for nearly 85% of the nation's gas utility sales, urges you to support the Senate Energy Committee version of S. 932, as reported out of the Committee, a bill to develop alternative energy sources.

Since May of this year, when the House Banking Committee reported out legislation to encourage prompt development of synthetic fuels as a means of reducing the nation's dependence upon imported foreign oil, Members of Congress and private sector groups like ours have been confronting the question of whether existing federal agencies will be capable of effectively implementing a program to reduce oil imports.

After considerable discussion with our member companies, we have concluded the Department of Energy will be unable to implement such a program in a timely fashion and, therefore, the A.G.A. strongly endorses Title I of the "Synthetic Fuels Corporation Act of 1979", S. 932 as reported by the Senate Committee on Energy and Natural Resources. We believe this measure is an important step toward reducing our nation's dependence on foreign oil through support of the commercialization of alternative fuels, including coal gasification. When examined against its counterpart, reported from the Senate Committee on Banking, Housing and Urban Affairs, the Energy Committee measure is clearly superior for the following two reasons:

(1) While, both the Senate Banking and Energy Committees synthetic fuel titles are really only financing mechanisms to allow the private sector to construct synthetic fuels plants, the Banking Committee title is limited in scope and places severe restrictions on program implementation. Under Phase I of the Banking plan, only one project in any given technology could receive assistance (i.e., one Lurgi high-Btu coal gasification plant) and a loan guarantee incentive could be awarded only if the President decided a price guarantee could not be used. The restriction on technology will preclude the multiple demonstration of commercially promising process on different resource (i.e., different coal and will result in the attractive technologies being demonstrated. The Senate Energy Committee places no such restrictions on awarding loan guarantees and allows multiple demonstration of promising technologies.

(2) The other major problem with the Senate Banking Title I is that it favors price and purchase guarantees and will, therefore, be anti-competitive by limiting the size of companies which can afford to come forward with the necessary front-end capital. Regulated utilities and small companies will not be able to raise the necessary front-end capital required to construct a synthetic fuels plant; so that loan guarantees and other front-end incentives, provided for by the Senate Energy Committee, are absolutely essential.

One important advantage of the Senate Energy Committee Title I provisions is that it will permit immediate solicitation by the DOE of proposals for a loan guarantee incentive for a commercial-scale high-Btu coal gasification project. This interim solicitation mechanism will allow the proposed Synthetic Fuels Corporation to award a loan guarantee and commencement of construction of a high-Btu project by spring 1980, perhaps one year earlier than under the Banking title. Even for those coal gasification projects which do not receive an award, this interim mechanism will allow the Corporation to receive proposals which it can subsequently act upon. By contrast, the Banking Committee version will necessitate greater delay in making an award in that it require the creation of a new office and new procedures within DOE. The plan also establishes extensive concurrence procedures within the federal bureaucracy (i.e., EPA, HUD, DOI, DOL, DOA, and DOT) which will delay program implementation.

Some concern has been voiced over permitting the Synthetic Fuels Corporation to have Government Owned Contractor Operated (GOCO) facilities. The restricted application of the GOCO principle in the Senate Energy Committee bill is an appropriately limited means of federal government involvement, but one which may represent the most practical approach to encourage the development of emerging technologies.

Finally, the Senate Energy Title I provides a special incentive (joint ventures) for second generation demonstration plants (commercial modules). The Banking alternative provides no such assistance. There are several promising synthetic fuels processes which have been demonstrated at pilot plant scale.

but are not ready to be scaled-up to full commercial size. These processes may offer efficiency, cost, and resource utilization advantages (e.g., may permit the gasification of Eastern coals; while without this provision only Western coal would be used). The Energy Committee title will allow the construction of demonstration plants using commercial scale components which could subsequently be scaled-up into commercial size plants; the Banking title does not.

**SUMMARY SHEET : ADVANTAGES OF TITLE I OF SENATE ENERGY COMMITTEE BILL
COMPARED TO SENATE BANKING COMMITTEE BILL**

The Senate Banking Committee Bill will be anti-competitive by restricting available incentives to purchase and price guarantees (unless the President determines these incentives will not be effective to achieve program goals). Regulated utilities and small companies will not be able to raise the necessary capital required to construct a synthetic fuels plant; so that loan guarantees and other front-end incentives, provided for by the Senate Energy Committee, are absolutely essential.

The Senate Energy Bill will remove implementation of the Synthetic Fuels Program from the DOE bureaucracy. The creation of a Synthetic Fuels Corporation as a financing vehicle will break the deadlock which has prevented the commercialization of synthetic fuels since 1974 (passage of Federal Nonnuclear Act).

The Senate Energy Bill by providing for an interim solicitation mechanism for high-Btu coal gasification will allow an early (spring 1980) commencement of construction. The Senate Banking Bill could delay this technology a year.

Title I of the Senate Energy Bill allows greater flexibility in process and technology selection than the Banking Committee version. The Banking Committee Bill prohibits multiple technology demonstration—even in diverse resources.

The Senate Banking Bill is directed primarily at liquids fuels and will therefore result in significantly less domestic synthetic fuels production than the Senate Energy Committee Bill. This lower production will necessarily result in higher foreign oil payments and a concomitant negative impact on the U.S.

The restricted application of the GOCO principle in the Senate Energy Committee Bill is an appropriately limited means of federal government involvement, but one which may represent the most practicable approach to encourage the development of emerging technologies.

The Senate Energy Bill provides a special incentive (joint ventures) for promising "second generation" synthetic fuels processes. The Banking Bill does not provide an incentive for the demonstration of these technologies at the commercial module scale.

Attached is a fact sheet summarizing the major points of A.G.A.'s support of Title I of the Senate Energy bill, S. 932, as reported out of Committee.

I hope you will find our views on this important legislation helpful. Thank you for your careful attention to this issue of importance to the gas utility industry. If we can be of further assistance to you, please feel free to contact me or Mike Baly (841-8616) or Bob Boyd (841-8591) of my staff.

Sincerely yours,

GEORGE H. LAWRENCE.

Mr. HATFIELD. Mr. President, I congratulate the chairman of the Energy Committee for a very comprehensive presentation of this very important measure we are considering today, and I associate myself with his remarks.

This morning, the Senator from Louisiana (Mr. Johnston), the Senator from New Mexico (Mr. Domenici), and I were at the White House, discussing this measure with President Carter.

In order to indicate some of the thoughts that were expressed to the President this morning and to express more comprehensively some of my own views, I should like to make a brief statement before turning the management of this section of the bill over to the Senator from New Mexico (Mr. Domenici), who introduced one of the first measures in this Congress dealing with synthetic fuels. He has been one of the major stalwarts in the Energy Committee in the development of this measure.

Mr. President, the Energy and Natural Resources Committee has laid before the Senate an answer to the question, "What can we do about energy besides just giving the big oil companies more time and more money?"

It is a comprehensive answer. It deals with right now, and it deals with 1995. It deals with making liquid hydrocarbons, and with making them less necessary. It deals with motivating the people and institutions of an entire nation.

Answers less forceful, less sure, or less complete will not do. We have tried them.

Mr. President, at the foundation of the Energy Committee's bill are two cornerstones. Without them this bill would be no stronger than our previous responses have been to the oil problem that first hit us in 1973.

First, the bill creates a new instrument—the Synthetic Fuels Corporation—which stands to be a very potent force for the commercial testing of synfuels technology. There are few who would dispute that we should be today where this Corporation will get us in 3 to 5 years. In that period we will test a number of technologies and their impacts and potential for producing the fuels on which our Nation runs. Today we do not know what our options will be. We do not know what kind of role we should expect synfuels to play in our energy future. Without the Corporation, I suggest we will not know for a good deal longer than 5 years. The oil companies have displayed their intentions in the matter by opposing this bill, and the Department of Energy has displayed no talent for commercialization in this or any other energy area.

The second cornerstone is a concept embodied in the committee's bill. It is the bill's treatment of conservation as an energy resource. What synfuels cannot do, nor any other resource in the next decade, energy conservation can. We must develop it and deploy it as our first and most important energy resource. The committee bill begins to recognize this for the first time. We must elevate conservation measures and technologies to their rightful place among our priorities. The multi-billion-dollar conservation program of this bill is the first major step we will take within this new framework.

Conservation is cost effective. It is energy production. It is the wise and careful husbanding of limited material resources. It makes more fuel available for truly needed uses. But we have never before been willing to look at it in quite this way, nor spend the money that is now quite evidently warranted.

Mr. President, the environmental community is scared. I believe, however, that we can make some modest adjustments and meet their legitimate concerns.

Big oil, on the other hand, is just plain greedy. There is nothing more we should do in this bill for them. We are prepared to offer the energy industry—big and small alike—the financial inducements to do things they are not willing to do by themselves right now. But big oil apparently wants synfuels all to themselves, and in their own good time. If we wait for them, or if we amend the committee's bill to take out our ability to leverage technically competent smaller companies into the synfuels business, we will have sold this country's future to the sheiks.

Mr. President, I am pleased to ask the distinguished Senator from New Mexico (Mr. Domenici) to manage this section of the bill. I know

that in concert with the Senator from Louisiana (Mr. Johnston) we will be able to provide Senators with any answers to the questions they may wish to raise.

Mr. DOMENICI. Mr. President, I thank the Senator from Oregon (Mr. Hatfield) for his kind remarks regarding my efforts in connection with this bill and the matter before the Senate.

In a few short moments, he has placed this matter clearly before the Senate so that every Member should be able to understand it. It is a very significant statement by the Senator from Oregon. I thank him for his confidence, and I will do my best.

Mr. HATFIELD. I thank the Senator.

Mr. JOHNSTON. Mr. President, I thank the distinguished Senator from Washington (Mr. Jackson) for his kind comments about me.

Today, the Senate will begin the debate which will determine whether the United States is ready in 1979 to take the essential step to free itself from its unacceptable dependence on imported petroleum. That step is the development of the capability to produce gaseous and liquid hydrocarbons from abundant domestic resources of coal, shale, tar sands, heavy oils, and biomass. This is a step we have failed to take several times in the past when specific opportunities were presented. It is a step we must take now.

In 1973, the price of imported crude oil was approximately \$3.40 per barrel. Last week the Department of Energy estimated that the average cost of internationally traded crude oil in October 1979 was \$21.60 per barrel. This October 1979 average figure—over six times higher than the 1973 level—is in fact a composite of prices beld below what the market would actually dictate and the far higher spot prices which are our only hint at the real demand clearing price of crude oil. Saudi Arabia sells a large amount of its oil for \$18 per barrel—a political concession to the West. Spot crude oil prices are more than twice that—approximately \$40 per barrel.

The world price of crude oil is now limited only by the fear of the oil producing countries that further price increases will bring economic chaos and ruin their investments which are measured in the currencies of the consuming countries. The minute the oil producer cartel can convince itself that the Western economies have managed to absorb the latest round of increases in energy costs, it will impose another one on us.

So our efforts to adjust to higher and higher energy prices will ultimately fail unless we take that essential step to establish a program to set a limit on the price we can be forced to pay for oil.

There is only one way to set such a limit. That is to develop the capability to produce other domestic sources of energy, particularly gaseous and liquid hydrocarbon fuels, as alternatives to imported oil.

That is the purpose of the Energy Security Act, S. 932, as reported by the Committee on Energy and Natural Resources. This bill establishes the fundamental elements of Federal policy to develop the real alternatives to imported oil:

A comprehensive, credible commitment to develop gaseous and liquid fuels from abundant domestic resources of coal, shale, tar sands, heavy oil, and biomass;

The largest, most flexible set of energy conservation initiatives ever reported to any House of Congress, including authority which the Congressional Budget Office estimates will result in nearly \$4 billion

in Federal outlays for energy conservation between now and 1985—and a far greater expenditure of private funds—to “produce” energy by improving the efficiency with which we use it;

A major effort to speed the production of gasohol, derived from abundant domestic biomass and coal resources, as a substitute for the commodity which is most affected by our need for imported oil: High octane, unleaded gasoline; and

Initiatives in solar energy, wind power, and other renewable sources of energy which, taken together, constitute a watershed in Federal commitment to a mature, major program to commercialize alternative renewable sources of energy.

Mr. President, I ask unanimous consent that a more detailed summary of the Energy Security Act to be printed in the Record at the conclusion of my remarks.

The PRESIDING OFFICER (Mr. Nunn). Without objection, it is so ordered.

(See exhibit 1.)

Mr. JOHNSTON. Mr. President, the legislation reported by the Committee on Energy and Natural Resources is comprehensive. Its major provisions complement and reinforce each other. Each of these provisions is needed if an effective policy is to be established. In the case of this legislation, the whole is greater than the sum of its parts.

This concept is important, because it is evident that certain special interests are promoting to Members of the Senate the notion that a meaningful synthetic fuels program can be established without one or another of the key elements of the Energy Security Act.

For example, these interests object to the Synthetic Fuels Corporation established by the bill. They object to the authority for commercial size Government-owned, contractor-operated synthetic fuels plants (GOCO's). They complain that the commitment of funds is too large; \$20 billion in the first phase of the program, and ultimately, \$88 billion, if congressional approval of a specific production strategy is obtained.

Mr. President, these elements of the Energy Security Act are precisely the ones which guarantee the credibility—to OPEC and to the world—of the commitment of the United States to the development of domestic alternatives to imported oil. If we lose any one of these major provisions, the legislation we adopt will be fundamentally flawed, and the value of the message we send to foreign producers of conventional oil will be irretrievably diminished.

The special interests maintain that we can effectively address the immense and growing problems posed by our dependence on foreign oil by a substantially lower commitment of funds, by a total reliance on “market mechanisms” or by waiting for further academic discussion and evaluation of the results of laboratory-bench experiments before any real commitment is made to synthetic fuels development. To lend credibility to these arguments is to pretend that symbolism can replace substance, that an aggressive and realistic program can be rejected in favor of business as usual.

The coalition opposing the comprehensive approach adopted by the Committee on Energy and Natural Resources is a peculiar one—a confection of odd couples. It is not, however, unprecedented. This mix of unlikely allies—major, international oil companies, and extreme envi-

environmentalists—are united in their opposition to the Energy Security Act. They have been together before, whenever the public policy of the United States came too close to providing Americans with an alternative to chronic, ever-increasing oil prices. For these environmentalists, rising energy prices mean economic stagnation and an end to growth, prospects they somehow find desirable. For the major international oil companies higher prices simply mean profits, and more profits, guaranteed by continued reliance on conventional sources of oil, a source of energy they control as no one else does.

Support for the position that the United States ought to defer establishment of a national policy to develop synthetic fuels options also comes from certain academic economists. Their arguments are based on theories which suggest that the undeniably lower cost of extracting conventional oil will dominate petroleum economics until world conventional oil resources are exhausted. These theories, however, do not incorporate any information about, or any experience with, the worldwide cartel which controls the available incremental unused supplies of oil. More importantly, no purely economic analysis can incorporate the need to protect our own national security from the political uncertainties built into this cartel.

In my opinion, this country has had enough of oil companies, environmentalists and economists telling us that we should wait, yet another period of years, until the price of oil is higher and our need for energy supplies is greater, or until a few huge international oil companies with enormous financial interest in reserves of conventional oil located overseas decide that the time is right to develop our domestic reserves of coal, shale and tar sands.

We have been down this road before. At least twice since 1970, the advice of those who urged the development of domestic synthetic fuels has been rejected in the public policy process. During that time we have suffered a massive oil embargo and two incredibly steep and wrenching increases in oil prices. As a direct result, our people have come to regard double digit inflation as inevitable.

We are no closer now to taking the necessary steps to set a limit on future price increases than we were then. And, incredibly, we are still advised to place our faith in a small number of privately owned international oil companies to respond to the national need to develop domestic sources of hydrocarbon fuels. This is asking far too much of these companies, whose rightful allegiance is to profit maximization, not the national security of the United States. What is needed is not a policy which passes the buck to the private sector. Nor do we need an inefficient and costly Federal crash program which ignores the legitimate role of private sector in the production, processing and distribution of goods and services.

What we have tried to do in the Energy Security Act is draw the middle ground between these positions. The essential features of the committee proposal are three:

First, we need an Energy Security Corporation. We do not need a replica or, worse, some segment of the existing energy bureaucracy. The Energy Security Corporation will be a financial institution with technical expertise, but first and foremost a financial institution. While subject to congressional oversight, it will not be snarled in the redtape which so characterizes the bureaucratic experience. The Corporation

will be able to make realistic and credible commitment to private industry for large projects with long leadtimes without the uncertainty of year-to-year budgetary second guessing.

Second, we need a significant Federal commitment of funds. The program must be of sufficient size to attract, and support a broad spectrum of private sector efforts at synthetic fuels commercialization. The commitment of the Congress must be credible in financial terms and large enough to permit more than the few major international oil companies to participate. Indeed, a program which does not bring forth and support competitors to the major oil companies in the production of synthetic fuels cannot be viable. Therefore, I believe the \$20 billion phase I commitment combined with the flexible array of financial arrangements set forth in the Energy Security Act is absolutely essential to the success of the program. No less necessary is the commitment, once a broader production strategy has been developed, to substantial funding during phase II.

Third, the resort to Government-owned, contractor-operated facilities during phase I is essential, to insure that the Federal Government is able to participate in the bargaining process with the private sector on even terms. Unless private companies know that a realistic alternative to their good faith participation is a government-owned facility, there will be, as history shows, little real attempt, at least on the part of the major established firms to further the development of synthetic fuels.

A failure in this Congress to establish a real synthetic fuels program, incorporating the key elements of the Energy Security Act, will only guarantee that the job we do not begin during the chronic energy shortages of the 1970's will be initiated during the acute shortages of the 1980's and 1990's. Failure to establish a prudent and realistic program now will only guarantee that a program started at a later date—in the late 1980's or early 1990's—will be inefficient and enormously disruptive both environmentally and economically. For no matter what we do now, the next 20 years are going to be tough years from the point of view of energy supply. We need to work as hard as we can now just to keep our import dependence from getting worse than it is now. The Energy Security Act is a prudent middle-ground approach to synthetic fuels development. If we fail to enact this program now we are setting the stage for a demand by the people for a substantially larger and truly draconian Federal presence in the hydrocarbon fuels business in the future.

Mr. President, these elements of a Federal synthetic fuels policy will permit the initiation of a diverse group of commercial scale projects. Actual experience—as opposed to conjecture and study—can then provide us with the necessary information upon which to base decisions to move forward. I ask unanimous consent that a table of likely projects to be funded under the \$20 billion phase I program be inserted in the Record at the end of my statement.

The PRESIDING OFFICER. Without objection, it is so ordered.

[See exhibit 2.]

Mr. JOHNSTON. Mr. President, the key to this list is diversity. It represents a series of options we should long ago have begun to clarify with real experience. We as a nation can no longer afford to wait for others to decide whether or not to investigate these options further.

The case for the Energy Security Act is stated in two separate letters I recently signed with other members of the Committee on Energy and Natural Resources and distributed to all my Senate colleagues. I ask unanimous consent that these letters be inserted in the Record at the conclusion of my remarks.

The PRESIDING OFFICER. Without objection, it is so ordered.

[See exhibit 3.]

Mr. JOHNSTON. Mr. President, I would also like to conclude this statement by quoting, from the report of the Committee on Energy and Natural Resources, an eloquent summation of the background and need for this legislation, the Energy Security Act, at this point in our history:

SUMMATION OF BACKGROUND AND NEED

The history of Federal policy toward synthetic fuels related above displays nearly 40 years of Congressional recognition of the potential for supplementing petroleum-based fuels with synthetics created from plentiful domestic energy resources. At every step in the policy process, there has been general agreement on the need for actual operating experience from several commercial-sized demonstration plants. In many instances there has been strong support for an aggressive effort to achieve substantial production of fuels from synthetic sources.

In recent years, as the prospect of continued national strategic and economic vulnerability to imported petroleum has become evident, Republican and Democratic Administrations have both recommended programs of substantial Federal financial assistance to establish a synthetic fuel capability based upon coal, oil shale, biomass and plentiful and secure domestic energy resources.

The Congress, similarly, has strongly supported research and development of the relevant synthetics fuels technologies and has already authorized financial support for demonstration plants.

Despite this evidence of support, no large-scale demonstrations of any such technology have yet been undertaken. Indeed, the United States has lagged behind many nations with less economic ability, fewer resources, and perhaps less urgent need for such new energy sources.

Canada is developing its tar sands, South Africa is greatly expanding its existing coal liquefaction capability, and China annually produces a portion of its oil from shale. Domestically, we are still immersed in academic arguments over the potential merits, hazards, and economic viability of synthetic fuels as a part of our energy future.

Our present policy choices would be based upon solid experience rather than speculation if a few demonstrations had been initiated as proposed in 1971, or even if the authorities actually enacted by the Congress in 1974 had been implemented. In each instance, however, suggestions that delay would improve the technological basis for such undertakings, reluctance to make the financial commitments necessary, and the idle hope that industry would enter into such ventures on its own have sapped the will to proceed. The initial decisions to embark upon the inevitable vital exploration of a major option in energy policy have been consistently stifled in the annual budgetary process and the vagaries of bureaucratic decisionmaking.

The purpose of this measure is to address the failures of the past and to set in motion an organizational and financial arrangement which can sustain a multi-year commitment. The purpose of this measure is to put synthetic fuels into perspective for our national energy future.

Mr. President, we have two or three basic questions to answer with respect to synfuels. The Senate Energy Committee bill answers those question one way, and the Senate Banking Committee bill answers those questions another way. To me, it is hardly even a debatable question as to which bill is the better.

The Banking Committee bill is the result of trying to engraft energy jurisdiction in places where it does not belong, and you end up, in the process, with not a tight, coordinated bill that is about where it should be but, rather, a bill that goes all the way from HUD to Agriculture to

the Commodity Credit Corporation to the Government National Mortgage Association to the Secretary of the Treasury, and a little piece in the Department of Energy.

What we have is no coordination, not enough money to solve the problem, not the kind of Federal effort that is going to be needed.

Why do we have a separate Corporation? That is perhaps the key question in this bill.

We have created a five-member Corporation, with terms of 5 years each, to be appointed with the advice and consent of the Senate; and they can be removed only for malfeasance or nonperformance of duty—a really independent Corporation. Why do we want to do that?

Mr. President, the history of synthetic fuels in this country provides the first answer. The history of synthetic fuels in this country has been on again, off again, start, build some plants, then withdraw.

We started in this country in 1916 with synthetic fuels. At that time, we built two experimental retorts near Rifle, Colo. We also built a refining research center near Boulder, Colo. This was in 1916, more than 50 years ago. Those facilities operated, and operated rather successfully, for more than 10 years.

Finally, there was opposition, mainly from the major oil companies, and President Hoover, in 1930, closed down all operations, saying that it was not necessary to follow through our approach toward synthetic fuels or shale oil at that time. Of course, in 1915, that was during World War I, and they thought that perhaps we were running out of fuel. But they were rather successful with those two experimental retorts near Rifle, Colo. However, that was shut down in 1930.

Then we came along in 1944. Senator Randolph, who at that time was in the House of Representatives, together with Senator O'Mahoney, who was chairman of the Senate Interior Committee, introduced and passed the Synthetic Liquid Fuels Act of 1944. This was a \$24 million undertaking, with pilot plants built again near Rifle, Colo. Those plants operated for more than a dozen years, with some great success.

By 1953, the Under Secretary of the Interior, Mr. Northrup, wrote to Senator Sparkman:

It now appears that costs have been reduced to a point of approaching a level with petroleum products.

In 1954, a Bureau of the Mines pamphlet stated that recent cost estimates show that commercial costs of making shale gasoline and other liquids on a large-scale basis would closely approach the cost for the corresponding petroleum products.

So the Synthetic Liquid Fuels Act of 1944 was off and running and showing real success. But again there was a pullback by the Federal Government, a stopping of what we had started.

We have had other starts and stops.

Union Oil in 1948 had a small pilot plant, with \$12 million invested. There was a 1957 demonstration plant with 360 tons per day capacity. There were expressions of great satisfaction from Union Oil, but it was shut down in 1958 supposedly because of the flood of imported oil.

Occidental Petroleum's efforts out in Colorado show great promise as do the efforts of a number of other companies.

But Mr. President, each time we get up to the edge Congress pulls back.

This Senate in 1975 passed the Synthetic Liquid Fuels Act of 1975. We passed it overwhelmingly. There were at that time two interagency White House studies recommending that we go into it in a big way. One ERDA study of June 28, 1975, called for a goal of 7 million barrels a day by the year 2000. The interagency task force of July 1975 said that a minimum goal by 1985 should be 325,000 barrels a day with two other alternatives, one of 1 million barrels and one of 1.7 million barrels a day by 1985.

That was in 1975. And what happened with all the great flurry that the Senate passed the bill with? It got over in the House of Representatives and with the same old tired coalition they beat back synthetic fuels.

So, Mr. President, we have started and we have stopped. We have started in the Senate; they have killed us in the House of Representatives. We have started with one administration; another administration comes along and kills it.

With synthetic fuels we are talking about tremendous financial undertakings. These plants, the 50,000-barrel-a-day variety, will cost somewhere in the neighborhood of \$2 billion, according to the estimates of Cameron Engineering and Pace Engineering, and a whole host of other engineers, about \$2 billion each.

Now it is going to be chancy technology, even though we know and we have known since the 1957 report in Rifle, Colo. We have known we could make oil from shale. The Germans produced 80 percent of their aviation gasoline from coal during World War II. We have known these technologies for a long time. However, there are the economics of scale, and the difficulties of massive synthetic fuels plants. With respect to their economics, it is a massive undertaking.

I believe that the only way we are going to be able to get private industry to invest in these plants is to give them a Government agency with whom they can deal and in whom they can have confidence in its continuity, its imperviousness to political change, and its ability to deliver on what it contracts to do and it purports to contract to do. In other words, the only way we are going to get private industry to invest a major part of a \$2 billion plant is to be able to count on Government to say what it is going to do and not change its mind as has been the history.

So, for that purpose, we created in this legislation the Synthetic Fuels Corporation.

Again, Mr. President, it is a five-man Board, with 5-year terms and with staggered terms. The President makes the appointment initially with the advice and consent of the Senate but there will be removal only for nonperformance or malfeasance. This will create a real independent Board with authority and power to act.

Mr. President, the second essential point of our legislation is the amount of funding. We provide for \$20 billion. The Banking Committee provides for \$3 billion. Why \$20 billion? Because everyone agrees that it is going to take \$20 billion to do the job.

What is the job? The job is 10 to 12 commercial demonstrations of one-of-a-kind synthetic fuels technology. We do not want to build any replications at all under what we call phase I of this legislation because in phase I we want to find out how these technologies will work on a commercial demonstration basis.

But in order to test out the number necessary it will take 10 to 12 plants; 10 to 12 plants by any estimate are going to require \$20 billion, and that is the reason we fixed the \$20 billion in our legislation.

The Banking Committee does not disagree with the 10- to 12-plant figure, but they provide only \$3 billion, and \$3 billion will build about 1½ plants.

The Banking Committee bill says they want 10 to 12 plants. So either they do not mean that or in any event they do not provide the funding necessary.

Mr. President, I think it is time for this country to do something. In the newspapers over the weekend and this morning there were a number of articles which I found to be particularly interesting.

One in this morning's paper pointed out a poll taken among Members of the House of Representatives who were asked this question:

Over the next 10 years, how likely does the Representative think it is that the United States will undergo sharp political, social, and economic upheaval brought on by a shortage of energy?

Mr. President, 62 percent thought that that was likely. Almost two-thirds of the Members of the House of Representatives foresee sharp political, social, and economic upheaval. It is facing us in the future. And yet what were the other articles in the paper over the weekend?

On Sunday we found that the NRC was announcing a moratorium in nuclear plant licensing. That is going to extend it into the 1980's. Two of our colleagues, two of our leaders, one in the House of Representatives and one in the Senate, are asking for a 3-year moratorium. We are finding that a coalition, including the State of Massachusetts, the Conservation Law Foundation, the Fishermen's Association, and others, are suing to stop the Georges Bank lease which is set for tomorrow saying that little oil spills do lasting harm. There is a report coming out on coal and how dirty coal is.

Mr. President, we are getting to the point in this country where we cannot produce any energy anymore. We cannot do anything except go to court, write reports, file lawsuits, and have debates.

Now, Mr. President, this bill says "let us begin to do something we should have been doing a long time ago," and that is produce our domestic resources. This bill will say "Let us do it." We are not spending \$20 billion in a pellmell program to produce a lot of replications of commercial demonstrations until we know whether they will work. But we will, Mr. President, make commercial demonstrations of each of those technologies which have the greatest promise.

Mr. President, I hope the Senate is willing to do business, is ready to go after it as far as energy is concerned and to help solve this country's problems.

EXHIBIT 1

SUMMARY: S. 932, ENERGY SECURITY ACT

SYNTHETIC FUELS (TITLE I)

Purpose of the measure

The Synthetic Fuels Corporation Act of 1979 (Title I) would create an independent wholly federally owned corporation called the Synthetic Fuels Corporation. The five member Board of Directors would be appointed for five year staggered terms, subject to Senate confirmation. The Chairman is to be designated for

an initial five year appointment. In addition, the Chairman of the Energy Mobilization Board, the Secretary of the Treasury, and the Secretary of Energy are to serve as non-voting members of the Board.

The purpose of the Corporation would be to foster commercial production, by private industry, of any liquid, gaseous and solid hydrocarbon (including mixtures of coal and petroleum) which can be used as a substitute for petroleum and natural gas or for any derivative thereof, which is derived from coal (including lignite and peat), shale, tar sands (including heavy oil) and biomass. In addition, commercial MHD projects are eligible for financial assistance.

Goals and objectives

A national goal would be established to create by 1995 the capability within the United States to produce synthetic fuels at a level of 1.5 million barrels of oil equivalent per day, under a two-phased (or staged) commercialization program.

The Phase I objective would be to develop experience with differing synthetic fuel technologies and significant resource bases (or feedstocks), while developing the industrial base to undertake in Phase II achievement of the 1995 production goal. The emphasis of Phase I would be on diversity of technologies (including differing processes, methods and techniques). An obligation authority of \$20 billion (including up to \$1 billion for biomass) is authorized for Phase I, subject to appropriations.

The Phase II objective is achievement of the 1995 national synthetic fuel production goal. As a conditioned precedent to beginning Phase II the corporation would have to develop and submit to the Congress, within three years of enactment of this measure, a comprehensive production strategy. The strategy would be subject to a one-House disapproval within 60 days. Upon Congressional acquiescence in the production strategy, the maximum obligation authority available to the Corporation would be increased to \$88 billion. This additional amount, however, would be subject to appropriations. No obligations for financial assistance in excess of \$20 billion could be entered into by the Corporation prior to Congressional acquiescence in the comprehensive production strategy and appropriation of the necessary funds to implement Phase II.

Financial assistance

The Corporation would be empowered to provide financial assistance for commercial synthetic fuel projects in the following order of decreasing priority:

- (1) purchase agreements and price guarantees;
- (2) loan guarantees (up to 75 percent of project costs and 60 percent of any overruns);
- (3) loans (up to 75 percent of project costs plus 60 percent of overruns); and
- (4) joint ventures (up to 75 percent of project costs) during Phase I, for commercial modules.

Also the Corporation, under certain circumstances, would be authorized to purchase and leaseback synthetic fuel projects.

Corporation construction projects, which would be government-owned but contractor constructed and operated, would be authorized only during Phase I and only for one-of-a-kind facilities employing technologies (utilizing significant domestic resources), and only after no participant could otherwise be found who would be willing to proceed under one or more of the above forms of financial assistance. During Phase I up to three such projects would be authorized on such a last resort basis; any additional Corporation construction projects would be submitted to the Congress for approval, subject to a one-House veto within 30 days. No such projects would be authorized during Phase II.

Financial structure

The Synthetic Fuels Corporation is structured to be a Federally chartered financial enterprise and empowered with various forms of financial assistance to permit achievement of the purposes of the Title. The financial structure of the Corporation has been formulated to provide a substantial degree of independence to its operations, while preserving the integrity of the Federal budgetary process and the opportunity for Congressional reconsideration of funding

levels between Phase I and Phase II in the event of major subsequent changes in current projections of future energy supplies and prices.

The financial resources available to the Corporation over its 16-year lifetime would be up to \$88 billion, subject to appropriations. The Corporation would be authorized to borrow these funds from the Treasury in amounts necessary to meet obligations. There would be established an account in the Treasury called the Synthetic Fuels Account. Appropriations would be deposited in the Synthetic Fuels Account, in at least two installments, by the terms of the authorization act. The first installment of \$20 billion to support Phase I would be authorized upon enactment, and would be subject to appropriations. The second installment for Phase II would be authorized after three years, upon acquiescence by the Congress of a comprehensive production strategy to achieve the national synthetic fuel production goal. This amount would be subject to appropriations. Should the Congress foresee a need to alter the spending pattern after Phase I, and prior to the availability of any installment of borrowing authority for Phase II, they would, of course, have the option of enacting such a change.

Treasury operations

Upon the receipt of notification from the Corporation that an amount of borrowing authority in the Synthetic Fuel Account had been encumbered pursuant to a contract or other agreement by the Corporation, the Secretary would deduct that amount from the balance available in the Synthetic Fuels Account. When the Corporation needs actual funds, for example, for administrative expenses or to support financial assistance such as loans, the Secretary of the Treasury would be authorized to purchase notes of the Corporation to the extent of its appropriated borrowing authority from the Synthetic Fuel Account in the United States Treasury. Notes would be retired upon revenues or dissolution of the Corporation.

Budgetary aspects

All financial transactions between the Secretary of the Treasury and the Synthetic Fuels Corporation would be reflected in the budget of the United States. Thus the extent of actual borrowing by the Corporation from the Department of the Treasury (and the Synthetic Fuel Account) will be reflected as outlays of the United States Government.

The internal financial operations of the Corporation would not be reflected in the Federal budget since it is to be an independent entity. However, the salaries and expenses of the Corporation, its contractual obligations, and its accounting system would be available for scrutiny through statutorily required annual and quarterly reports and audits.

Relationship to other laws

Corporation construction projects would be subject to the EIS requirements of the National Environmental Policy Act and environmental, land use and siting laws to the same extent as a privately sponsored project.

Davis-Bacon and Service Contracts Act would apply to loans and loan guarantees by the Corporation.

The recipients of financial assistance and the Corporation construction projects are required to provide for reasonable participation by small and disadvantaged businesses.

Crude oil and other petroleum products produced by synthetic fuel projects receiving financial assistance would be subject to price or allocation controls only where expressly imposed by the Congress.

Termination

The authority of the Corporation to obligate funds would cease after September 30, 1990. And the Corporation must terminate its affairs by September 30, 1995. Upon termination the outstanding contracts for financial assistance would be transferred to the Secretary of the Treasury for administration.

GASOHOL—TITLE II

The Gasohol Motor Fuels Act of 1979 (Title II) will accelerate domestic production of alcohol for use as a motor fuel by establishing national goals for future

production and by providing Federal financial assistance to assure the construction of production facilities. The President shall seek to achieve a national goal of a volume of alcohol fuel from renewable resources equal to 10 percent of the estimated gasoline consumption in the United States by 1990.

For the purpose of focusing Federal energy policy and for coordinating financial assistance for commercial production of alcohol fuels, the President is directed to establish an independent Office of Alcohol Fuels within the Department of Energy. The Office is responsible to the Secretary of Energy; the Title prohibits any delegation of this authority of the Secretary to any other Office in DOE.

This goal will be examined in a report and a comprehensive strategy to be prepared by the Office and submitted to the Congress and the President in 1982. Concurrently, the President shall exercise his authority under this Title and under other applicable provisions of law so that the nation will achieve an annual production as large as is technically and economically feasible, but not less than 60,000 barrels per day, of alcohol fuels from renewable resources in 1982. This interim goal is considered to be a challenge to the country and one that should be met; it is equivalent to the production of almost 1 billion gallons per year in alcohol fuels. The Department of Energy's current policy is designed to achieve 500 to 600 million gallons annually by 1985. However, with significant Federal incentives provided through loan guarantees, price guarantees, and purchase agreements, the nation should be able to triple the DOE estimate for 1982 of 20,000 barrels per day and thereby achieve a minimum of 60,000 barrels per day.

At the end of 1982, the Office will then be in a position to accurately assess the ability of the United States to reach the national goal, and the methods which the nation will have to utilize to achieve this goal and to adjust the goal, if necessary.

The purpose of having an independent Office is to assure that the focus on alcohol fuel production will be maintained for the life of the Office. The Office should not be subject to organizational changes within DOE, and should be insulated from other intra-Department problems. Yet, by maintaining the authority of the Secretary over the Office, national energy policy will still be coordinated and uniform and the Office itself will operate as part of an agency of the Federal government. Therefore, all civil service laws and other laws applicable to a government agency will apply to this Office.

The Office will be authorized to issue loan guarantees, price guarantees and purchase guarantees to qualified projects to assure production of a sufficient quantity of alcohol fuels to achieve the national goals. The Office is authorized \$200 million for a revolving fund to back up the contractual commitments it makes for Federal financial assistance. This amount of money will allow the Office to contract for \$650 million in the aggregate, to provide Federal financial backing for alcohol production facilities.

The Committee was concerned with the lack of progress that alcohol fuel has made under the present Federal agency structure. Therefore, they decided a separate office in one agency was needed to establish the necessary priority and in order to achieve the goals of this Title. Since several Federal agencies have roles in the development of alcohol fuels, the Committee decided, consistent with the intent of the Department of Energy Organization Act, to establish an office in the Department of Energy, to focus the efforts of the Federal government on the goals of this Title. In addition, the Committee had received a report from the Office of Technology Assessment, issued in September, 1979, which concluded that the Department of Energy's "role has been more aggressive than that of USDA (the Department of Agriculture)", which support the Committee's choice.

Title II contains a subtitle that requires the Commodity Credit Corporation to sell its surplus sugar stocks as a feedstock for ethanol production to be used in gasohol.

The provision affords the CCC a period of time in which it may sell each crop of surplus sugar for other purposes, besides conversion into ethanol. Those other purposes include food production and any other purpose permitted under existing law. For the 1977 and 1978 crop year, this period of normal sales is 3 months after the date of enactment of this Act. For later sugar crops the period is one year after acquisition of the sugar. Once this period elapses then the CCC must make every reasonable effort to sell the sugar surplus crop exclusively as a feedstock for ethanol to be used in gasohol, or as a livestock feed.

If that one year effort does not result in substantial sales of the sugar surplus, then the OOC is required to enter into processing agreements to convert the sugar into ethanol and any ethanol produced under such processing agreements will be made available for use by the Federal motor fleet.

The next subtitle directs the Federal government to use gasohol in any motor vehicles, capable of using gasohol, which it owns or leases. Exceptions apply where the gasohol is not available in reasonable quantities or at reasonable prices or where necessary to protect the national security.

The Secretary of Energy is required to conduct a study on whether legislation is needed to mandate that any new motor vehicle shall be capable of operating on gasohol or on pure alcohol. In addition the study will assess the need for any other legislation to address technical or institutional barriers that inhibit the widespread marketing of gasohol.

The purpose of the subtitle on Natural Gas Priorities is to provide that two specific uses of natural gas are included under the term "essential agricultural use" for purposes of natural gas supply priority under section 401 of the Natural Gas Policy Act of 1978. These uses are:

- (1) sugar refining for production of alcohol; and
- (2) the use of natural gas for agricultural production and set-aside acreage or diverted acreage where the commodity produced will be converted into industrial hydrocarbons and blended into gasoline or other fossil fuels for use as a motor fuel or industrial fuel.

Existing law is amended to require the President to exercise his standby allocation authority if he finds that significant quantities of alcohol suitable for use in motor fuel would not otherwise be used for that purpose because of an unavailability of petroleum products into which the alcohol would be blended.

Specifically, where the President finds such situation to exist he shall use his authorities under section 4(a) of the Emergency Petroleum Allocation Act to allocate crude oil to specific refiners or petroleum products to gasoline marketers so that the available alcohol will be blended into motor fuel.

In exercising this authority the President is to give due consideration to quality control in refinery operations affected by his action under this provision, to avoid disruption of the markets for crude oil or refined petroleum products, and to avoid causing unreasonable increases in the price of alcohol.

TITLE III—ENERGY TARGETS

Title III, the Domestic Energy Policy Act of 1979, requires the President to submit annually to the Congress a set of energy production and consumption targets for specific forms of energy for the years 1980, 1985, 1990, 1995 and 2000 in a format set forth in the bill. The targets must be accompanied by a report containing a plan for reaching these targets. The President is required to review the targets annually thereafter and to update the plan to achieve the targets as necessary.

The purpose of this Act is to require that the Congress debate a comprehensive and internally consistent set of energy targets for the Nation and that the Congress vote on and the President approve, a specific set of such targets.

Therefore, a mechanism is established for amendment and adoption of the initial set of energy targets by Congress as well as for annual Congressional review and, if necessary, revision of the targets. The appropriate jurisdictional committees of the House and the Senate are directed before May 15 of the first year after enactment to report a joint resolution containing targets in the same format required for the President's report. In subsequent years such a resolution would reaffirm or, if necessary, modify, the targets established in the previous year. If a Committee fails to report before May 15, any member of Congress would have access for a specified period (to July 15) to expedite procedures to discharge that committee of any resolution establishing, revising or reaffirming targets.

After a Committee has reported such a joint resolution (or, after May 15, if a motion to discharge a Committee from such a resolution has passed) the debate on the targets in the resolution would take place. Debate is limited to 20 hours and amendments which preserve the mathematical consistency of the targets would be in order. Because the Act prescribes a joint resolution, it is intended that a conference resolve any differences in the results of the debate in each House and that the targets be submitted to the President for his signature. Once enacted the targets would function as a guide to Federal energy programs. However, these targets would not constrain these programs in a legal sense.

TITLE IV—ENERGY CONSERVATION ACT OF 1979

Findings, purposes and definitions

Subtitle A establishes the findings, purposes, and definitions for the Energy Conservation Act of 1979.

Energy conservation bank

Subtitle B of the Energy Conservation Act of 1979 (title IV) establishes a subsidized loan program wherein the Government National Mortgage Association make payments to banks and other financial institutions which are willing to make low-interest loans for energy conservation improvements in residences and commercial buildings. The interest rate to borrowers under this program may be as much as 6 percentage points below the market rate. The payments from GNMA to the banks will be in such amounts as are necessary to compensate the banks for the difference in yields between the low-interest loans and market-rate loans.

Eligibility for subsidized loans depends upon both the status of the borrower and the type of structure the borrower would improve. Total annual income of the borrower's household must not exceed \$40,000, adjusted for inflation, for family size, and for cost-of-living differences between different areas of the country. A borrower may not be an owner of a residential building of more than four dwelling units. A borrower may not be a business which conducts more than \$1 million in gross annual sales. A borrower, who is not the owner of the structure the borrower would improve, must be paying the energy bills.

Loans are limited to a total of \$2,500 per independent dwelling unit—whether detached, semi-detached or attached—and \$2,000 per dwelling unit in a two-to-four unit building. Loans are limited to \$50,000 per commercial building. An applicant must certify that the sum of all Federally subsidized energy conservation expenditures which have been made on the applicable dwelling unit or commercial building does not exceed the loan limit. In other words, expenditures used to obtain an income tax credit and expenditures used to obtain a grant are subtracted from the limit otherwise allowed. The limits will be indexed 10 percent per year for inflation.

Residential energy conservation grants

Subtitle C of the Energy Conservation Act of 1979 establishes a state-run grant program wherein the Federal government will cost-share residential energy conservation measures. Eligibility for grants depends upon the status of the grantee and the type of structure.

Total annual income of the grantee's household must not exceed the national median, adjusted for inflation for family size, and for cost-of-living differences between different areas of the country. A grantee may not be an owner of a residential building of more than four dwelling units. A grantee who is a renter must be paying the energy bills. A grantee who is aged 65 or older is eligible for 150 percent of the grant that would otherwise be obtained.

The grant schedule produces a maximum grant of \$300 per dwelling for owners as a level of expenditures of \$750. For renters, the maximum of \$300 is reached at expenditures of \$600.

GRANT SCHEDULE

[Will be indexed 10 percent per year beginning Jan. 1, 1981]

Expenditures	Independent dwellings			Dwelling units in buildings of 2-4 units	
	1st \$250	2d \$250	3d \$250	1st \$250	2d \$250
Owners (percent).....	60	40	20	60	40
Grant.....	\$150	\$100	\$50	\$150	\$100
Cumulative total.....	\$150	\$250	\$300	\$150	\$250
	Independent dwellings			Dwelling units in buildings of 2-8 units ¹	
	1st \$200	2d \$200	3d \$200	1st \$200	2d \$200
Renters (percent).....	90	50	10	90	50
Grant.....	\$180	\$100	\$20	\$150	\$100
Cumulative total.....	\$180	\$280	\$300	\$180	\$280

¹ Must be separately metered or leased under arrangement whereby lessee pays energy bills.

Residential energy efficiency improvement

Subtitle D of the Energy Conservation Act of 1979 establishes a program to ascertain the conservation effectiveness of contracting with private energy conservation companies to conduct systematic residential energy audits and install energy conservation measures throughout defined geographic areas. Such companies would be compensated under contracts with State or local agencies only for energy actually saved. Initially, the Secretary of Energy would institute the program on a demonstration basis in a limited number of utility service areas, and only with the agreement of affected public utilities and designated State authorities. If determined by the Secretary to be successful, and after a report to the Congress, the program would be expandable to other parts of the country. Funding for the program would be provided through payments by participating public utilities based on the value of them of the energy actually saved by the conservation measures installed under the program, and to the extent necessary out of funds borrowed by the Secretary from the Treasury of the United States. To carry out the program the Secretary is authorized to borrow up to \$100 million for fiscal year 1980 and, in the aggregate, an additional \$400 million in subsequent fiscal year, all subject to appropriation acts.

Utility program

Subtitle E amends Parts 1 of title II of the National Energy Conservation Policy Act (NECPA—Public Law 95-619) which requires public utilities above a certain size to establish utility programs under which residential customers of those utilities will be informed of the possibilities for making energy conserving improvements in existing residences. NECPA contains specific requirements with respect to the recovery of costs by utilities under these programs and generally prohibits the supply, installation or financing of residential energy conservation measures by the utilities covered by the Act.

The purpose of subtitle E of the Energy Conservation Act of 1979 is to remove certain of the detailed Federal rules with regard to cost recovery under utility programs, to relax the prohibition on supply or installation of residential conservation measures by utilities if these activities are undertaken through independent suppliers and contractors, and to eliminate any Federal prohibition on the financing of residential energy conservation by utilities. The basic structure of the utility program under NECPA would not otherwise be changed.

Energy auditor training and certification

Subtitle F of the Energy Conservation Act of 1979 authorizes a program in the Department of Energy for two-year funding of \$50 million to support State training and certification of energy auditors, and to pay for related State administrative costs. The proposed training program would be managed by the States and conducted by either States, local or regional governments, utilities or private firms. The auditors would be licensed by the State and could work for utilities or in the private sector.

Residential conservation service

Subtitle G of the Energy Conservation Act of 1979 expands the Residential Conservation Service (RCS), established by the National Energy Conservation Policy Act, to all residential buildings and to small commercial buildings. The present RCS covers only residential buildings with one through four dwelling units. Audits would be available to landlords and tenants, as well as to owner-occupants, of these buildings.

Industrial energy conservation

Subtitle H of the Energy Conservation Act of 1979 authorizes an additional \$40 million for each of fiscal years 1980, 1981 and 1982 to accelerate the industrial energy conservation research, development and demonstration programs of the Department of Energy.

Residential energy audits

Subtitle I of the Energy Conservation Act of 1979 would encourage residential homeowners and occupants to accept the offer made by public utilities to perform an energy audit of residential buildings as required under existing law (NECPA) and to provide purchasers of residential buildings with an energy audit to the building they are purchasing. This provision prohibits a financial institution

whose deposits are insured by an agency of the Federal government from financing the purchase of a residential building unless an energy audit of the building is made available to the purchasers or the purchaser posts a \$50 bond that is refunded when he obtains an energy audit of the building that he is purchasing. This provision does not apply where a good faith, but unsuccessful, effort has been made to obtain an audit, where the Secretary of Energy has exempted that particular geographic region, or where there is no utility audit program serving that residential building. These requirements begin January 1, 1981, and remain in effect for five years.

TITLE V—GEOTHERMAL ENERGY

The Geothermal Energy Act of 1979 (Title V) establishes in the Department of Energy loan programs to promote the confirmation of geothermal reservoirs, and to provide funding for feasibility studies and construction of specific geothermal projects. The confirmation and feasibility study loans are forgivable if certain findings are made by the Secretary of Energy. The private sector is required to finance 50 percent of a confirmation loan for an electric application, 10 percent of a confirmation loan for a nonelectric application, 10 percent of a feasibility study loan, and 25 percent of a construction loan. The interest rate in each case is equal to the interest rate set in the Water Resources Development Act.

A Federal insurance and reinsurance program is also established to protect against reservoir failure. Funding for this program will come from the Geothermal Resources Development Fund.

The loan guarantee limits in the Geothermal Loan Guarantee Program are raised from 75 percent to 90 percent for municipalities and cooperatives, and supplemental fundings for loans and loan guarantees are made available to the Small Business Administration, the Rural Electric Administration, the Farmers Home Administration and HUD from the Geothermal Resources Development Fund.

The Secretary of Energy is directed to identify and report on the economic, institutional, regulatory, and technical impediments to the accelerated commercialization of geothermal energy in the specific areas of geopressured methane, hot dry rock, and environmental control technology as it relates to all areas of geothermal energy.

The Secretary is also directed to initiate a program for the use of geothermal energy in Federal buildings and each Federal agency is directed to fully consider the use of geothermal energy in its buildings, facilities, and installations.

Section 210 of the Public Utility Regulatory Policies Act of 1978 is amended, so that the exemptions from the Federal Power Act and the Public Utility Holding Company Act and other requirements will be available for geothermal projects 80 megawatts in size, rather than 30 megawatts currently, with one exception for which the limit is raised to 200 megawatts.

The Committee intends that DOE, in implementing the geothermal loan guarantee program under existing law and the new program authorized by this Title for reservoir insurance, will include, as part of the project costs eligible for a guarantee or insurance coverage, the necessary new transmission system required for interconnection of remote geothermal projects to existing transmission systems.

Also, the Committee feels that geothermal sites across the country should be examined, however, the major effort of the government has been in the West. This accurately reflects the interest of the industry, but sites in other parts of the country, for example in New England, should also be examined.

TITLE VI—RENEWABLE ENERGY INITIATIVES

Title VI directs the Secretary to support the development of a coordinated renewable resources information dissemination network, which makes use of local, State and regional entities as well as Federal programs. The Secretary is also directed to establish a National Solar Energy Information Center for the purpose of providing informational and referral services to public and private organizations.

The Secretary is required to provide certain specific publications, materials, and outreach programs and is required further to assign to an appropriate element in DOE the principal responsibility for the development of these publications and materials.

Title VI requires the head of each Federal agency to incorporate, to the maximum extent practical, cost-effective solar energy systems in new and substantially renovated civilian Federal buildings. The definition of cost-effective requires a

comparative test be made between the total life-cycle costs of the solar energy system and the total costs of an alternative conventional system. Fuel costs for the conventional system are to be based on the projected price of world oil.

The title amends the existing weatherization program to include materials associated with passive and active solar energy systems as eligible weatherization materials.

The title establishes a new program on energy self-sufficiency in an existing office of the Department of Energy. The program must initiate and encourage energy self-sufficiency at the local level and to demonstrate by 1990 energy self-sufficiency in some local jurisdiction.

The title provides a 30 percent small business set-aside and amends the Federal Photovoltaic Utilization Act to allow purchasing of photovoltaic systems for a wider range of uses by Federal agencies.

The budget authority for the title is \$50,000,000 from which no funds may be used for cost-effective solar energy systems in new or removed civilian Federal buildings.

TITLE VII—WIND ENERGY INITIATIVES

The Wind Energy Commercialization and Utilization Act of 1979 (Title VII) provides for a number of initiatives to promote the development and commercialization of wind systems:

(a) it requires the Secretary of Energy to establish a wind commercialization program including a program of low-interest loans for buyers of wind systems;

(b) it requires the Secretary of Energy to conduct a study of wind energy use in Federal facilities, utility application and overseas; and

(c) it establishes a Federal wind system procurement program.

The authorization for this Title is \$100 million in fiscal year 1980.

TITLE VIII—SOLAR ENERGY DEVELOPMENT BANK

The Solar Energy Development Bank of 1979 (Title VIII) establishes a Solar Energy Development Bank within the Department of Housing and Urban Development for the purpose of providing long-term, low interest loans to residential and commercial purchases of solar systems.

The Bank will operate through existing financial institutions and reimburse these institutions for interest subsidies granted to borrowers.

For subsidies, \$50 million is authorized in fiscal year 1980, \$150 million in fiscal year 1981, and \$275 million in fiscal year 1982.

TITLE IX—EXTENSION OF DEFENSE PRODUCTION ACT

The purpose of Title IX, the Defense Production Act Extension Amendments of 1979, is to extend for two additional years the expiring titles of the Defense Production Act of 1950, as amended.

SUMMARY OF AUTHORIZATIONS

[By fiscal years; in millions of dollars]

	1980	1981	1982	1983	1984
Authorization:					
Title I.....	20,000			168,000	
Title II.....	650				
Title III.....	1	2	2	2	3
Title IV.....	450	1,255	940	900	900
Title V.....	150	150	150	150	150
Title VI.....	50				
Title VII.....	100				
Title VIII.....	50	150	275		
Title IX.....	3	3			
Total.....	21,454	1,560	1,367	169,052	1,053
Estimated outlays:					
Title I.....	10	25	35	36	37
Title II.....	1	1	2	2	2
Title III.....	1	2	2	2	3
Title IV.....	10	615	1,070	1,095	1,030
Title V.....	5	70	145	188	180
Title VI.....	5	30	15		
Title VII.....	5	20	50	25	
Title VIII.....		115	240	120	
Title IX.....	3	3			
Total.....	40	881	1,559	1,468	1,283

¹ Contingent upon congressional approval of comprehensive production strategy and separate appropriations action.

EXHIBIT 2

SYNTHETIC FUELS PROJECTS—PHASE I OF S. 932

The objective of Phase I is to demonstrate the widest possible diversity of synthetic fuels technologies. It is impossible to make a definitive list of the projects which would be built because the proposals will depend largely upon the judgment of the industrial participants who come forward. Furthermore, because of the uncertainties of costs and of possible financial arrangements, it is impossible to be definitive concerning how many projects would be built.

The following list, therefore, is based upon potential proposals and is a representative mix which would meet the objectives and provisions of Phase I of the measure.

I. High BTU gasification of coal.—to produce pipeline gas.

There are at least 7 potential technologies and several active proposals.

Assume two plants would be built at 25,000 to 50,000 barrels per day oil equivalent each.

II. Low-medium BTU gasification of coal.—to produce boiler fuel.

There are at least 4 technologies.

Assume two plants at 25,000 to 40,000 barrels per day oil equivalent each.

III. Solvent refining of coal.—to produce a clean, high-energy solid or liquid boiler fuel.

There are at least two technologies.

Assume two plants at 20,000 barrels per day equivalent each.

IV. Methanol from coal.—to produce a fuel additive or to be upgraded to gasoline.

There are at least two technologies.

Assume one plant at 25,000 to 50,000 barrels per day each.

V. Coal liquefaction.—To produce a refinable product.

There are at least three technologies.

Assume two plants at 20,000 to 40,000 barrels per day each.

VI. Surface-retorted shale oil.—to produce a refinable product.

There are at least five technologies and several active proposals.

Assume two projects at 50,000 barrels per day each.

VII. Modified in situ shale oil.—to produce a refinable product.

There is an active program.

Assume one project at 50,000 barrels per day.

VIII. Ethanol and other biomass.—to produce fuel or additives.

There are various processes and proposals.

Assume 30 or more plants for a total of 60,000 barrels per day.

SUMMARY

Technology	Number of plants	Output (barrels per day)
High Btu gas.....	2	75,000
Low/medium Btu gas.....	2	65,000
SRC.....	2	40,000
Methanol.....	1	50,000
Coal liquid.....	2	80,000
Surface shale.....	2	100,000
In situ shale.....	1	50,000
Ethanol-biomass.....	30	60,000
Total (12 major, 30 small).....		500,000

EXHIBIT 3

COMMITTEE ON ENERGY AND NATURAL RESOURCES,
Washington, D.C., November 5, 1979.

DEAR COLLEAGUE: This week the Senate will consider S. 932, the synthetic fuels bill.

The Senate Energy and Banking Committees have reported different versions of the measure. Although each version also includes other important provisions, it appears that the most controversial votes will be those on the choice between the two approaches for encouraging the production of synthetic petroleum and natural gas substitutes from domestic energy sources such as coal, shale and biomass.

The Energy Committee's version of the measure would establish an independent Synthetic Fuels Corporation. The Corporation, on behalf of the Federal Government, would assist industry in financing a number of major synthetic fuels projects. The Corporation would function primarily as a banking institution and thus could offer a variety of price guarantees, product purchases, loan guarantees or direct loans only as a last resort, and only within the first three years could contract with industrial partners who would construct and operate not more than three Federally financed commercial plants.

The total Federal involvement in the first phase of the program would be limited to \$20 billion. Only a small portion of this amount would result in actual expenditures of Federal funds. Most would be contingent liabilities, in other words, insurance against a portion of the risk taken by the industrial participant. A second phase of the program, to achieve by 1985 the 1.5 million barrels per day production goal, would be initiated only after the Corporation submits a plan to achieve the production goal to the Congress for its approval, and only after further appropriations are made.

The reason for the establishment of the Corporation is to create an independent, single-purpose management which will be free of the continual policy redirections, priority changes, and bureaucratic and administrative tangles which have defeated the implementation of previous synthetic fuel initiatives. The program size, while prudent, is adequate to demonstrate a wide variety of available technologies and resource bases. Considering the financial leverage of the Federal participation, this level of support would accommodate between 10 and 12 large commercial facilities with several smaller gasohol or biomass plants.

The authority for the Corporation to resort to government-owned, but contractor-operated, (GOCO) projects is a strictly limited last resort. It is an essential tool if the Corporation is to be able to explore a promising technology for which no industry partner is prepared to take or share the risk. It is also an essential safeguard if the Corporation must negotiate with a potential partner where no other competitive proposal is available. GOCO as a fallback also will be an important provision which has the effect of forcing industry to participate earnestly in the program. That is why they are opposing it so stridently.

We view the total Title I program to be a responsible, workable initiative towards establishment of the infrastructure for a synthetic fuels industry—one which can ultimately make significant reductions in U.S. dependence upon imported petroleum, and place a ceiling upon the extortionary prices of the world oil market.

The Energy Committee's report on the bill relates the long history of previous efforts to begin to demonstrate synthetic fuels. The Senate has always strongly supported such programs, but they have been defeated in the House or stifled in implementation.

Now again, the same forces and arguments which have prevented previous initiatives from becoming reality are being marshalled to resist this proposal. The major oil companies, who have chosen not to use their abundant financial capabilities and technical expertise to build such projects, are objecting to Federal assistance which might assist other, less unjustifiably enriched corporations to undertake them. The extreme environmental groups, who espouse a policy of deprivation and curtailment, propound all sorts of speculative objections and resist any effort to explore and ascertain the real effects of synthetics. We are treated to a picture of unusual coalitions among interest groups who cannot possibly share the same objectives, for example, environmentalists and major oil companies.

These are the same coalitions which lobbied against earlier bills and the same arguments which prevented us from demonstrating a U.S. synthetic fuels capability in the decade of the 1970's. We can thank them for the fact that the economic, environmental and social consequences of a synthetic fuels industry are as much conjecture today as they were in the days of the first embargo, the "project independence" proposal and the subsequent OPEC oil price increases.

If they succeed in hamstringing and stalemating this initiative once again, we will be just as ignorant of our domestic options in the decade of the 1980's, when chronic petroleum curtailments and unconscionable prices are certain to become commonplace. Eventually, we will be driven to a crash program in synthetics. A program without planning, without safeguards, and perhaps without time enough to avert economic disaster.

I urge you to support the Energy Committee proposal. The choice is not between more or less investment, between one or another management approach, or whether GOCOs are in or out. The choice is whether a credible, workable program

will belatedly get started now or whether it will again be frustrated by special interests and spurious fears at the expense of the American people.

Sincerely,

WENDELL H. FORD.
PETE V. DOMENICI.
HENRY M. JACKSON.
J. BENNETT JOHNSTON.

NOVEMBER 2, 1979.

DEAR COLLEAGUE: One of the most significant bills to emerge from our Energy and Natural Resources Committee in recent years comes to the Senate floor on Monday, November 5, when the Senate takes up Title I of our version of S. 932, legislation establishing a synthetic fuels program for America.

Our Committee, using hearings and reports over a five-year span, has developed a comprehensive synthetic fuels program that puts the emphasis on private development of America's vast deposits of coal, oil shale, and tar sands. We have considered requests for broader programs and have rejected these recommendations.

What we have reported to our colleagues in the Senate is a prudent, flexible approach that reflects the consensus of judgment of dozens of witnesses from the business and financial community, science and educational experts, energy policy specialists, and engineers in the field.

Here's what Title I of our legislation would do:

Establish a new, lean private corporation called the Synthetic Fuels Corporation, with five-member Board of Directors subject to the full approval and oversight of Congress;

Empower this Corporation to serve as a financial central clearinghouse to process requests for financial aid from private firms interested in developing commercial quantities of synthetic fuels;

Limit to \$20 billion the amount of funding that would be "on call" to fulfill the financial obligations to private enterprise that the Corporation would make. This money would not be appropriated in one lump sum, thus avoiding having such a large amount lying idle;

Provide a "Sunset" provision that limits the Corporation's life to ten years;

Give the Corporation a wide variety of financial incentives, as recommended by all witnesses, so that private firms of almost all sizes could participate in synthetic fuels development;

Place strong limitations on government construction projects, allowing such projects only when private firms have expressed no interest or no ability in developing a promising, commercial technology and limiting projects under all circumstances to three during the first phase of the program only.

Here's what our bill will not do:

It will not allow government domination of synthetic fuels, since the Corporation is mandated to act merely as a financial clearinghouse for private enterprise;

It will not commit the government to a "crash" \$88 billion program;

It will not waive or override substantive environmental law or regulations;

It will not establish a new bureaucracy with an indefinite lifespan;

It will not merely pour more money into the existing administrative structure that has failed to bring commercial synthetic fuels on board.

We have all heard the threat of a 40 percent hike in crude oil prices by some members of the OPEC cartel. We can see what this year's price increases in imported oil have done to our economy; \$70 billion of our resources exported to foreign lands, along with the loss of hundreds of thousands of jobs, and a raging inflation rate that threatens the fabric of our economy.

We on the Energy Committee, for the third time in five years, come to the Senate with legislation to use our vast synthetic fuels resources to break the OPEC stranglehold on our nation. Passage of this legislation will be the clearest signal to Americans, and to foreign lands, that we are serious about ending our dependency on foreign sources of energy.

We ask your help in passing Title I of S. 932 as we have recommended it to the Senate. If you need further information or have questions you want answered, please call Dick Morgenstern (4-0099) or Steve Bell (4-6621).

With warm regards.

Sincerely,

J. BENNETT JOHNSTON,
WENDEL H. FORD,
PETE V. DOMENICI,
HENRY BELLMON,
U.S. Senators.

Mr. JOHNSTON. Mr. President, I yield to my friend from New Mexico.

Mr. DOMENICI. Mr. President, I thank the Chair.

Mr. PROXMIRE. Mr. President, will the Senator yield for a unanimous-consent request?

Mr. DOMENICI. I yield.

Mr. PROXMIRE. Mr. President, I ask unanimous consent that M. Danny Wall, John Daniels, Linda Zemke, Paul Winslow, Leon Reed and Kenneth McLean of the Committee on Banking, Housing, and Urban Affairs, have the privilege of the floor during the consideration of S. 932 which extends the Defense Production Act of 1950 as amended. I also ask that Donald Chamblee of my office staff be granted the privilege of the floor also during consideration of this bill.

Mr. JOHNSTON. Mr. President, will the Senator yield?

The PRESIDING OFFICER. Without objection, it is so ordered.

Mr. JOHNSTON. At some point, probably today, as soon as we can get it cleared, I would like to suggest to my distinguished friend from Wisconsin that we have a unanimous-consent agreement to take this bill up title by title so that we can deal first with synfuels, amend that, and then pass that title. Then move on to another title so we will not have to be coming back and amending, I think we have, eight or nine titles of the bill. It has not been cleared yet on the Republican side, but I hope we can enter into that agreement.

Mr. PROXMIRE. So far as I am concerned, that is fine. It sounds like an orderly way to proceed, and that is acceptable to me.

Mr. DOMENICI. Mr. President, I personally would say as manager of title I, that I would agree to that, but we will try to keep the Senator posted and inform him later on when he is available as to what the situation will be.

The PRESIDING OFFICER. The Senator from New Mexico.

Mr. DOMENICI. I, too, have a rather detailed statement.

Mr. President, late last week, an unusual coalition of antigrowth, antibusiness groups joined their traditional adversaries, big business, in an effort to once again kill the beginning of a long overdue Federal effort to encourage development of synthetic fuels as part of America's fight for energy self-sufficiency. This coalition takes to the ultimate the old saying, "politics makes strange bedfellows."

Now, how can one explain this conjunction of forces so diametrically opposed to one another on such issues as the free enterprise system, economic growth, economic freedom, environmental law and regulations, and the role of Government in the private sector? Let us name this coalition for the kind of hybrid monster that it is—a cynical marriage of convenience between parties each bent on maintaining part of its political and ideological fiefdom.

On the one hand we have Exxon, the most profitable oil company in the world, a company that totaled profits of more than \$1.1 billion higher this past quarter than a year ago. Exxon, and some of its free enterprise natural allies in this fight, have joined with some of the so-called environmental groups, committed above all to limiting the economic growth of this Nation and to forcing Americans to accept a reduced standard of living.

What are average Americans, concerned about extraordinary dangers in which this Nation's energy policy has placed us, to make of this

battle, now joined here on the Senate floor as we on the Senate Energy and Natural Resources Committee bring our synthetic fuels bill to our colleagues for action? What are the unemployed to make of this battle, as they watch hundreds of thousands of jobs vanish as the OPEC cartel hikes oil prices again and again? What are those tens of millions of Americans, crushed by an inflation fueled by rising energy costs, to make of this confrontation? What are those who must pay more to heat their homes this winter than to eat to understand as they see Congress, beset by special interest groups that have their own private concerns paramount, waver once again?

I will tell you what I think my neighbors in New Mexico think because they have told me. They think Congress has failed to act decisively on synthetic fuels and that this failure could cost the Nation its economic freedom. Scientists at Sandia Laboratories in Albuquerque, the very scientists who work in the most innovative research in the energy field in the world, have urged me to take the case for synthetic fuels to Congress. They have told me, "Pete, we're doing a lot of good, important research, but we believe America knows enough now to begin a real thrust to commercialize synthetic fuels. We have to do the research at the same time we build commercial plants." That is what scientists in my State urge. And I might add, these scientists walk the beautiful mountains and streams of my State, and many of them are active members of environmental groups. Yet, they know that synthetic fuels can be developed without significant environmental degradation and they believe we should get on with the job.

What about other citizens, those who are not scientists or active in the field of synfuels? They, too, in their letters to me, in personal conversations, in letters to the State's newspapers, urge the Congress to move aggressively to develop synthetic fuels from oil shale, coal, and tar sands as soon as possible.

Why is such a consensus measured at about 75 to 25 in favor of synthetic fuels by national polling organizations? The answer is simple: Americans have waited in gas lines, seen their heating bills soar, found their vacations put out of reach by higher prices, worried about the next major interruption of crude oil from overseas, and they have decided that America must get serious about energy. And, they know that we have enough readily recoverable oil shale to produce more than 500 billion barrels of oil; enough coal sites with sufficient water right now to produce the equivalent of 4 million barrels per day of petroleum products; about the same amount of potential oil from tar sands as we have presently identified recoverable crude oil resources. Above all, they see American science, American technological genius, working in other nations to develop oil from coal, fuel from agricultural products, oil from tar sands, and they know that America has the knowledge and the resource. What they do not know yet, and what it is our duty this week on the Senate floor, is to show that America also has the will.

I have heard opponents of our bill say that they agree with me, they agree that we need synthetic fuels, that Government must encourage their development, that we have endangered our Nation by neglecting such resources. They say that the debate this week is merely whether to accept a synthetic fuels effort of a modest scale

or to accept the Energy Committee's more ambitious plan. That contention is simply wrong. The debate is not merely a quarrel over jurisdiction, or economic efficiency, or some equally arcane consideration. This debate clearly focuses on two approaches: The Banking Committee approach, in all of its forms, or the Energy Committee approach. And, at the core of that debate is the clearly diametrical presumptions behind the two bills.

The Banking Committee approach is a "business as usual" approach. It is the same approach that the Banking Committee adopted 5 years ago when it heard testimony on the Energy Independence Authority and decided to do nothing. The under-funded, fragmented approach of the Banking Committee, using merely the same old Federal bureaucracy that has failed to give us synthetic fuels in commercial quantities so far, it is exactly the kind of thinking that has brought us to our present vulnerability in energy. The Banking Committee bill, supported by those environmentalists who are opposed to synthetic fuels at almost any cost, says, "Well, just offer a few little concessions here and there and maybe this flap will go away." That is the attitude that has doomed the last two synthetic fuel bills that the Congress has considered. It is the same kind of attitude that has led to this situation, according to the Congressional Research Service; with present Government policy, including present incentives, no commercial production of synthetic fuels is anticipated by the year 1995. And, the Banking Committee approach is merely present Government policy with a little fancy ribbon wrapped around it.

Let us take a look at what the Energy Committee bill attempts to do. It says, "Present policy won't work. Business as usual won't work." It establishes a lean, business-oriented Synthetic Fuels Corporation. This Corporation's Board of Directors would be appointed by the President with the advise and consent of the Senate. In addition to five members chosen by the President and confirmed by the Senate, the chairman of the Energy Mobilization Board, the Secretary of the Treasury and the Secretary of Energy would serve as nonvoting members of the Board of Directors. The Corporation would be a financial clearinghouse for private firms that wish to develop commercial-sized plants to produce synthetic fuels from oil shale, coal, tar sands, and biomass.

The Corporation would embark on its goal—a goal of aiding private industry to create by 1995 the capability to produce 1.5 million barrels of oil equivalent from synthetic fuels—in two phases. In the first phase, the Corporation would have at its disposal \$20 billion to aid private industry in developing experience with differing synthetic fuel technologies of diverse kinds at the commercial level. This is the "high-risk" stage, one in which some technologies that have great future potential for commercial production, but are still too risky to draw private industry venture capital, would be supported. The Government, in essence, would reduce the economic risk and encourage private enterprise development in the field. After this first phase, in which the Nation and private enterprise would get economic, environmental, and technological experience with these diverse technologies, the Corporation would report back to Congress. This report would detail just what the first phase has taught us: What technologies seem

most promising for larger scale commercial development; what kinds of engineering innovations we will need to protect the environment; what kinds of economic incentives have worked and for what kinds of companies in what kinds of economic circumstances; and what probabilities exist for reaching the 1.5 million barrels per day capability by 1995. Congress then would consider the report of the Corporation and decide whether to implement the second phase—a phase aimed at fulfilling commercial production goals with the most economically and technologically sound processes, as revealed by the first stage.

This two-stage approach, first recommended years ago under President Ford's administration, seems the most prudent way to begin this forceful program. It is the kind of approach recommended by consultants to the Senate Budget Committee's Subcommittee on Synthetic Fuels, of which I was ranking minority member, during compilation of an indepth study of the economic sophistications of synthetic fuels production. This two-stage approach, combined with creation of the Synthetic Fuels Corporation, does several important things that witnesses before the Congress have stressed for several years: we need a focused, streamlined approach that is insulated in its day-to-day deliberations from the vagaries of congressional budgetary processes, but allows at critical junctures policy oversight by the Congress; it allows us to gain practical experience from a first stage of production of between 300,000 and 500,000 barrels per day of oil equivalent; it provides that we not have to make a huge appropriations commitment at the beginning of this process, only to see the money lie idle (a contractionary effect on the economy that could be counter-productive); it insures that the taxpayer's interests and risks are protected to a very high degree.

Under our bill's title I, the Corporation could provide financial aid to private industry in the following order of priority: Purchase agreements and price guarantees; loan guarantees (up to 75 percent of project costs and 60 percent of any overruns); loans (with the same restrictions as loan guarantees); and joint ventures (up to 75 percent of project costs) during the first stage for commercial module endeavors suggested by private industry.

The Corporation, during the first phase of existence only, would embark on Government-owned, but contractor-operated, projects, and even then would have a limit of three such ventures allowed it. These GOCO's would be a last-resort item in those technologies in which private industry was unable or unwilling to provide feasible plans for developing promising technologies in a field deemed important to the Nation's future energy needs.

The Corporation has been designed specifically to use the flexibility in financial mechanisms that all consultants to the Senate Budget Committee and witnesses before the Senate Energy and Natural Resources Committee urged as critical to the success of a synthetic fuels program. The financial structure of the Corporation would allow it substantial independence, and real freedom from politics as usual or pork barrel pressures. All of its dealings would be on-budget, and subject to the Federal budgetary process. If Congress decided to proceed with phase II of the program, total resources available to the Corporation over its 16-year lifespan could be as high as \$88 billion, subject to Congressional

appropriations. The Corporation would borrow these funds from the Treasury in amounts necessary to meet obligations to private industry and only as the funds were actually needed. The Synthetic Fuels Account within Treasury would not be funded by a windfall profits tax.

I should point out that no substantive environmental laws would be waived under our legislation. All present environmental laws would be working as the projects aided by the Corporation proceeded.

That is the essence of the Synthetic Fuels Corporation recommended by the Senate Energy and Natural Resources Committee to this body. This recommendation follows literally years of reports, hearings, investigations, and studies into synthetic fuels by our committee and its predecessor, the Senate Interior Committee. Our recommendations follow the general guidelines set forth by witnesses this year from private industry, the academic and scientific community, financial institutions, and from engineering experts within the field.

The experts recommend a two-stage approach, and we recommend the same. Experts recommend a program insulated to a large degree from the day-to-day whims of Congress, a situation in which the board of directors can make business-like decisions on finances free from political pressure, and we have adopted this strategy, also. Experts recommend a financing program for the Corporation that will reduce its contractionary impact on our economy, and we have provided for this. All experts recommend a wide flexibility in financial mechanisms that the Corporation can use to aid business, and we have agreed that this is a sound idea. We have rejected a wide-scale Federal involvement in construction, ownership, and operation of synfuels plants. We have rejected a crash program, free of all congressional oversight. We have rejected reliance on a new Federal bureaucracy with unlimited lifespan.

Let us look for a moment at the myths about our bill that our opponents attempt to spread:

First. Myth: The Energy and Natural Resources Committee approach is a crash program.

Fact: The Energy Committee approach is not a crash program by almost anyone's definition. For example, the study done by the Senate Budget Committee by PACE (Cameron-Engineers) shows that a "crash" program, as this consultant defines it, would lead to more than 2 million barrels a day of oil equivalent by the year 1990. The Energy Committee approach would lead to a capability of producing 1.5 million barrels per day of oil equivalent by the year 1995, with the full realization that such a goal might not be met. In truth, if one looks at the PACE study, the Energy Committee approach is much more like what PACE has termed "The Accelerated Engineering Program." The National Academy of Sciences' study on coal liquefaction and coal gasification indicates that a crash program would yield about 3.5 million barrels per day of oil equivalent in just those two technologies within a 20-year period. Our bill envisions about one-fifth of that production capability 15 years from now. The committee has rejected the "crash program" option.

Second. Myth: The Energy Committee approach allows no mechanism for midcourse correction, or phasing-in.

Fact: The Energy Committee approach is specifically two-phased. This approach is endorsed by the Congressional Budget Office, the Office of Technology Assessment, the Committee for Economic Development, and by others who have studied the problem.

Third. Myth: We do not need a Synthetic Fuels Corporation.

Fact: Present government programs have failed. The Banking Committee approach, using the Department of Energy, Department of Transportation, and Department of Defense, merely pours more money into existing agencies. Here is what David Goodman of Morgan, Stanley & Co., one of the most experienced financial houses in the energy field, had to say about the need for a Synthetic Fuels Corporation:

Philosophically, I would rather not see a new entity created for syn-fuels. However, to make the program work, the decisionmaking will have to be crisp, hard-nosed, and attuned to the needs of business. A regulator's mentality would be anathema to the purpose of the program. As a practical matter, I question whether there are sufficient personnel with the proper background to staff this undertaking in government at the present, or whether they can be attracted to the Civil Service. On balance, I conclude that a separate, Government-owned corporation, with a limited life, such as is contemplated by the legislation, is probably the best way to go.

That is the considered opinion of perhaps the single-most energy-oriented financial house in the Nation.

Accepting our Synthetic Fuels Corporation, contrary to the report issued by the Banking Committee, streamlines Federal involvement in synfuels development, allows us to put a businessman in charge of this program, focuses our energies, and gives us greater fiscal control. It is fully consistent with the phased development approach and still allows Congress to have the final say on the amount of money we ultimately will spend on our program. If you have doubts about a single-focus Corporation, such as we recommend, merely ask yourself if you want decisions on multibillion dollar synthetic fuel plants made by the Department of Energy. How much confidence will a businessman have when he begins to think about investing \$3 to \$4 billion in a synfuels plant after he realizes that backing for his investment will depend upon a bureaucrat in the Department of Energy and a far-from-certain appropriation from Congress? Failure to accept the Corporation truly means a failure to develop synthetic fuels in the most business-like and cost-effective manner.

Above all, a corporation, along the lines that we on the Energy Committee have endorsed, provides important insulation between the political process, with all its vagaries and whims, and the synthetic fuels program. Congress still has the oversight, control of the purse strings, and the ultimate say, but our recommendations present the best opportunity for decisions on financing of synthetic fuels plants to be made in the most businesslike and economically sound manner.

Fourth. Myth: Government-owned, contractor-operated plants in the Energy Committee bill are not needed.

Fact: The Energy Committee bill allows so-called GOCO's only as a very last resort. Our bill puts the emphasis on participation by the private sector. It is only when a promising technology is not endorsed by a private industry that a GOCO could be created. We have mandated stiff procedures to make sure that private industry has the first

shot at every technology and every process. One must realize that to absolutely prohibit all GOCO's would mean that we run the risk of allowing some companies to "hold up" the taxpayer. The GOCO's are a club in the closet, an attempt to insure that companies that come to the Government with synthetic fuels development plans will keep cost estimates in line. We cannot allow ourselves to be held hostage to unreasonable negotiations because we have completely prohibited the GOCO option. Again GOCO's are a last resort, not a substantial portion of the recommendations the Energy Committee has made to the Senate.

Fifth. Myth: If the market wanted to develop synthetic fuels, it would. We do not need Government.

Fact: The oil industry, which has the majority of holdings in some synthetic fuels technologies, has failed to develop one single commercial synthetic fuels plant in this Nation. This situation exists despite the fact that some of the industry leaders have earned literally billions of dollars in profits in recent years. Instead of developing synthetic fuels plants, some of these companies have bought department stores, electrical equipment companies, and similar ventures. Those who want total reliance on the market are saying, to paraphrase, "What's good for Exxon is good for America." No one in a responsible policymaking position can endorse that. The fact is that under present energy economy conditions, it is simply more profitable for companies to keep their resources in the ground, watching them increase in value, and take their profits from conventional crude oil and natural fuels at their own speed and under conditions they dictate.

In a truly competitive energy market such an approach would cause no grave damage. But America finds itself prey to an energy cartel that threatens to destroy our economy. We cannot afford the luxury of "business as usual." The Energy Committee recommendation is an intelligent response to the need to "prod" business into taking a risk and allowing a larger number of firms to compete in the energy business.

We have used Government to build the finest road system in the world. We have used Government to bring housing to those that found it difficult to get housing. We have used Government to provide impetus to a transcontinental railroad system. Our agricultural system, unique in the world, has benefited from such programs as the Homestead Act, land grant colleges, the Extension Service, and the Federal agricultural credit system. Our civilian aviation industry evolved from the research and development of military aircraft. Using Government as a partner with industry to meet the Nation's economic and social goals is a tradition that has helped make this Nation the power it is today. The Synthetic Fuels Corporation idea follows in this tradition.

Sixth. Myth: We will spend \$88 billion of the taxpayer's money under this plan.

Fact: No one knows how much the taxpayer will be out when the final tally is made, but history indicates that the taxpayer may well recover all of the costs of the program. The synthetic rubber program of World War II was an expensive proposition. But at the end of the war, all assets were sold to private industry and the taxpayers recovered 96.6 percent of their investment. And this is the key point

about the Energy Committee's recommendation: We are asking for an investment, which will be repaid over time.

Ultimate costs to the Nation will vary according to the costs to conventional crude oil and natural gas. Estimates from those with the most experience in synthetic fuels indicate that syncrude from coal today could be in the range of \$25 to \$35 a barrel, oil from shale in the \$25- to \$31-per-barrel range, and gas from coal slightly higher in cost. Spot oil prices for conventional crude have already passed \$40 a barrel. The so-called posted price will probably be \$30 a barrel by January of the coming year. If this is, indeed, the case, synthetic fuels will get a tremendous boost and the taxpayers will probably recoup all of their investment. In addition, the Corporation we recommend will have many requests for financial assistance and the goal of diverse, competitive private industry synthetic fuels industry will be that much closer to reality.

If energy prices continue to climb dramatically, the ultimate concept behind synthetic fuels may manifest itself: Synthetic fuels may be cheaper than conventional crude oil. This would be a tremendous step toward energy self-sufficiency for the Nation and would dampen an inflation that has been fueled into double digits by energy price hikes. At the present time, we have no supply alternative for our liquid fuels. We are fully dependent upon crude oil. Synthetic fuels offer one of our last great hopes for an alternative to conventional crude oil; and they offer one of the few realistic chances that energy prices will some day stabilize.

Many other myths abound, but I expect that during this week's discussion we will confront them one by one. I will not attempt to guess here what tack the discussion will take. But the facts are clear from a scientific point of view. Synthetic fuels can be produced in America, in an environmentally sound manner, with present technology.

Let me close these remarks today by noting that one of the responsibilities for policymakers is the responsibility to judge risks and then act. We have had 5 years in which to see what our lack of policy in synthetic fuels has created. If we had started this kind of program 5 years ago, when it was first brought to the Senate, we would now have a few plans nearly completed. We would know from empirical data the answers to questions that many have about synfuels, but we wasted that chance. Now, we are facing \$40 a barrel crude oil, the loss of 2 million jobs during the next 3 years because of this extraordinary increase in energy costs, and an inflation that is rending our society. We have waited far too long, because we weighed the risks and failed to act. It may be that we can salvage things during the next, crucial decade. Part of that salvaging process must involve synthetic fuels development. The Energy Committee approach moves prudently, but aggressively, toward synfuels development. The Banking Committee approach, underfunded, unfocused, and biased toward allowing only the biggest of businesses to compete in the field, simply is no approach at all.

I want to speak about the enormity of the issue that confronts the Senate today. Let me start by saying last week a very unusual coalition of antigrowth and antibusiness groups joined with their traditional adversaries, big business, in an effort to once again kill the

beginning—and I stress the beginning—of a long overdue Federal effort to encourage the development of synthetic fuels as part of America's fight for energy self-sufficiency.

This coalition takes to the ultimate the old saying that politics make strange bedfellows. How can we explain this conjunction of forces that are so diametrically opposed to one another on such issues as free enterprise and the free enterprise system, economic growth, economic freedom, environmental law and regulation and the role of Government in the private sector?

Well, let us call this coalition for the kind of hybrid that it is. It is a cynical, as I see it, marriage of convenience between parties each bent on maintaining part of its political and ideological fiefdom—and I do not say that about nor attribute that to any Members—but, I do believe that America is in too serious an economic energy crisis to let anyone try to maintain part of a political and ideological fiefdom unless the maintenance of that fiefdom is at least as important as America's future, that broad, that deep, and that significant.

On the one hand, we have Exxon—and we all know about them, a very profitable oil company, \$1.1 billion profits higher this past quarter than a year ago—and I have not been one to join the increasing attack on them, but it does seem to me that they and some of their free-enterprise allies in this fight have joined with some of the so-called environmental groups committed above all to limiting economic growth of this Nation and forcing America to accept a reduced standard of living, and to me this is extraordinary and unbelievable.

Now, Mr. President, I want to succinctly state the issue as I see it. The United States of America has an abundance of energy, but we cannot use it, we cannot develop it, and today we are going to try to take one small step toward permitting America to use what it owns, what it has, what it has been endowed with.

Now, listen carefully this country of ours, which today is on its knees with both hands tied because it is dependent upon 8 million to 9 million barrels of crude oil a day. We are on our knees, tied, strangling at the mercy of a cartel.

One would think that a country in that position must be bankrupt in terms of resources, would not one? Well, let me tell you how bankrupt we are. This country has 700 billion barrels of oil potential from shale—not millions, billions. And we are at the mercy of a cartel monopoly for 8 million barrels of crude oil. Let me repeat that we have 700 billion barrels of crude oil potential from just shale oil. That is one item.

We have 300 years' worth of coal, if coal was used for every bit of our energy needs. Listen again: We are on our knees because we cannot produce 8 million barrels a day of oil, and we have coal, 300 years' worth of coal, not in Arabia, not in Kuwait, not in Venezuela, not in Canada, but in America, the USA.

Third, we have 30 billion barrels of oil potential from tar sands. I have just taken three resources, and I am trying to make the point for America and for this Senate that "business as usual" has put us in this position where we have an abundance, but are bankrupt; where we have an abundance, but are totally dependent: where we have an abundance, but those who know of our vulnerability wake up every

morning in a cold sweat wondering, "When will somebody embargo America again."

We have seen one embargo. Now what approach is the cartel taking? A new scheme: No embargo but less oil will be produced by the cartel countries, and at a higher price. Less at a higher price, the exact opposite of enterprise economics. When are we going to learn that enterprise economics are not totally relevant today when the cartel says, "Less at higher prices," but our whole theory has been that higher prices should produce more?

We have brought to the Senate a Synthetic Fuels Corporation that many will oppose because they think business as usual will take care of it. Or what? They are afraid. Afraid of what? Afraid that somehow a Fuels Corporation, whose goal it is to finance the development of synthetic fuel—by whom? By the private sector—and they are afraid that somehow or other this is going to destroy the free enterprise system. Somehow or other the creation of something different threatens them. And, of course, the present energy-crisis does not demand anything different, they seem to tell us, because it is something we can handle in a business as usual manner—but this different approach, say certain big business leaders of America, has somehow or other built into it the capacity to destroy the enterprise system or at least destroy the energy enterprise system.

I have great fear, too, as an American, as a Senator, tremendous fear, tremendous fear that we are about ready as a nation to commit suicide. While we have 700 million barrels of oil equivalent in shale, 300 years of coal, we are about to commit energy suicide, because we are afraid to try anything different.

We are going to listen to the prophets here today who say "just a little bit of financial assistance and we will take care of this." Utter and absolute nonsense. It has not happened and will not happen, until we do something bold enough to match the problem; and the problem is about as big as America has ever had.

Then there is the third kind of reaction, and that is timidity. We do not want to risk anything. We do not want to take any chances, and that holds for big business and the environmental risks. We do not want to take any chances. It is all going to work out.

Yes, it is going to work out. When? There are some who say 10 percent of the inflation rate in America today, if traced back, is attributable to energy problems; 10 out of 13. I am not sure I believe that yet, but there are some credible people who say it. Almost everyone says the 13 to 14 percent inflation rate is the most serious economic problem we have ever had, and if we cannot break it we are in big trouble. Institutionally, we will see a change in our lifestyle, our way of life. There will not be any business as usual.

And yet, some will still take no risk at all. We do not want to develop that resource, and if we do, we do not want to take any chance at all that we will either harm the environment or change in any way the way the private sector has handled the development of synthetic fuel.

It just appears to me that this country needs an incredible series of events to be able to predict and act. We needed a war to help the aluminum companies develop an aluminum capacity. They were just as fearful then as they are today. "Don't get the Government involved. It

will take over. Somehow we will have a nationalized aluminum industry." On that occasion the prophets of gloom lost because we were in war. We did that through a national corporation. We built the strongest, most significant aluminum industry in the world in the shortest period of time. We gave it back to the companies. They purchased it and we gave the American people a profit to boot, and we did not take over the aluminum companies.

Synthetic rubber—identical. But we were in a war. We had no synthetic capacity. We chartered a corporation and we built the synthetic industry, sold it back to the private sector, made a profit for the American taxpayers, and won a war.

Now, let me say this: I do not believe we are going to have the leisure that we had before, if we have another war. We are not going to have a Pearl Harbor after which we can mobilize, get ready, do all these interesting things, argue on the floor of the Senate about aluminum or synthetic rubber. We all ought to know that we are today not only vulnerable militarily, but also we can be strangled economically because we have such strong dependence upon crude oil in its conventional form and natural gas in its conventional form. We have grown accustomed to these being cheap and we have grown accustomed to regulating everything.

Is it not amazing that those who oppose this bill will talk about it as being too much Government involvement when, as a matter of fact, one of the principal reasons we will not get synthetic fuel without this bill is because of regulatory risks and economic risks, both of which the Government has a tremendous amount to do with?

Now, let me just explain, in my own way, what this financial institution that we are going to create will do and why we must have it. An average synthetic fuel plant producing 50,000 barrels oil equivalent will cost between \$2 billion and \$3 billion. It might take between 4 and 9 years to build. It might take 5 years of permitting before you can turn the first spade.

Now, let me just ask: How many companies do we expect to be running a 100-yard dash up to get that first permit, to invest in the technology that we know will work but has not been commercialized, at least not here, not knowing the price of crude oil 9 years from now when it is finished, not knowing what kind of regulatory schemes we are going to have, and not knowing whether America even wants what it will produce?

Those are economic and regulatory risks which you cannot expect the private sector to assume. Regardless of what will be said on the floor here by those who oppose this bill, you just cannot expect them to do it. The bad thing is that most of them, with the exception of three or four large corporations, know it; and because they are afraid to take a chance, they would rather not have any synthetic fuel than to go with something different that scares them, that is a little bit different than business as usual. That is the issue.

What we do with our bill is take that set of economic and regulatory facts, plus technological advice that says, "If South Africa can turn coal into liquid fuel with the assistance of American engineers and American contractors, because South Africans are afraid for their survival, America ought to get on first base and get on with it." We are

the ones that know how. We only have 700 million barrels of oil potential in shale and 300 years of coal, and we have not started yet.

Now, our bill merely says, "Private sector, we want 8, 9, 10, maybe 11 plants, each capable of producing the equivalent of 30,000 to 50,000 barrels, in a number of technologies in those three basic products that we have much of, those basic resources. We want you to tell us: What does it take for you to build them? What does it take for you to own them? What does it take for you to get with it?" And we say: "We will finance you with loan guarantees. You do it. You own it. You sell the product. We want to get you in the position where you are excited enough and have enough confidence to do it. We want to be in the position to buy your product in case the military needs it, so we will guarantee to purchase the product if you will get out and build it. We want to say to you, in case you can't get the money, we will lend it to you."

Those people who talk about throwing \$20 billion at something just do not want to believe that we are lending, we are buying, we are investing—and I will make a prediction right here. If we go with this program and the cartel continues what it is doing now—15- to 20-percent increases per year in the price of crude oil—the U.S. taxpayers will not pay one penny for synthetic fuel under this bill. Because, come time to pay the loans off, they will be paid off because the first plant will be economically successful when it comes on board, because crude oil will be so high synthetic fuels' time will have arrived. But if we do not start now we will always be 8 to 10 years late. We will be 8 to 10 years at their mercy regularly and continually until we get started.

If we buy the product from them and it turns out that the purchase price is not as high as the price of crude oil, who wins? The American taxpayer. We buy crude oil or liquid gas cheaper than the cartel can sell it to us; is that a bad deal? Is that throwing money away?

It appears to me that unless and until we understand that it is not business as usual to bring this kind of industry on board and therefore will require something different, we will be arguing down here forever. And America's 700 billion barrels of crude oil locked up in oil shale will be locked up as inflation goes to 20 percent—and we send—instead of \$50 billion—\$60 billion, \$70 billion, or \$80 billion a year to the cartel countries for oil that we refuse to unlock and make available. We will continue to use crude oil or one of its products for home heating and under boilers to produce electricity, when we have 300 years of coal locked up in our own mountains, in our own deserts, on the surface and underground across this great land.

It will stay there because we want to limit its use, because we are timid and afraid to convert it to a synthetic which is clean and has much broader use than the basic product.

That is the issue.

And then we are asked, Is this some kind of crash program? This \$88 billion, an ultimate goal, is thrown around as if this Energy Committee just likes to get involved in throwing money around.

Well, let me tell you, Mr. President, for those who have listened—if you have not seen a scenario unfold in the past 3½ years in terms of our being strangled by a monopolistic cartel, if you have not seen that evolve and are not willing to take a few chances, then I do not know where you have been.

And there is no \$88 billion crash program in this bill. This bill says in the first phase develop 8 to 10 commercial 30,000- to 50,000-barrel plants in each of the significant technologies, in all three of those resources, and then report to Congress, report to the President, and tell us whether we should proceed. Either House of Congress can say no, and the President can say no.

Let me ask this in closing—is a country as great as ours obviously so dependent upon energy survival? Is a country so free that there is no freedom without it in the world? Are we too timid, are we so afraid, that we are going to leave the resources that this country has, which can solve our problems, locked in Mother Earth while we talk about do not waste a few dollars; do not take any chances; continue to be afraid, timid, fearful? Business as usual got us where we are, but it is not going to get us out all by itself. I hope the Senate will be bold. I hope it will say to the President, "We are going to send you a bill."

I hope it will say to the private sector, "We are going to give you the help, not just a few of you, but a broad based private sector of people to get on developing the resources we have."

I yield the floor.

Mr. STENNIS. Will the Senator yield briefly to me, Mr. President? Mr. DOMENICI. I yield.

Mr. STENNIS. I know the Senator from Wisconsin wants to proceed so I will be brief.

I want to ask these two Senators a question, now that the Senator from New Mexico has finished.

What are the probabilities, in the opinion of the Senator, of bringing to success one or more of these ventures the Senator has mentioned which are in the bill? I lean with the Senator on the bill. I think it is striking out in an unknown land, but it must be done.

I am going to be asking for more money than this in a few days for just one year for the military. What does the Senator think about the probability of success in one or more of these areas? That question is addressed to either Senator. I hope both Senators will be brief.

Mr. DOMENICI. Let me briefly answer and say the Senator has a custom of getting right to the point. That really is the point, the one asked by the Senator.

There is no doubt in my mind that given proper financial assistance to get rid of the grave economic risk involved, as I have described it, that we can develop, within the period provided here, one, natural gas from coal without question; liquids from coal without question—and the only problem there might be price, but we will develop it and it will be ready—and we will, without question, produce oil from shale in commercial quantities.

I do not think there is any doubt but all three of those will be on board if this bill is passed.

Mr. STENNIS. The Senator is a rather hard-headed, private enterprise man. Does the Senator think this is the Government's duty under our system, or does the Senator think private enterprise should be called upon to spend that much money?

Mr. DOMENICI. I will say to the chairman that I am a private enterprise man. The private sector will be involved in this. In fact, they will produce the success stories that will come from this bill. Only

under the most dire technological facts would we even consider, under this bill, building a plant owned by the Government, and then limited and operated by the private sector.

Mr. STENNIS. May I address those questions to the Senator from Louisiana, for whom I also have a high regard?

Mr. JOHNSTON. I would be very pleased to answer those questions. My answers are very similar to what the distinguished Senator from New Mexico has said.

There is not any question at all that each of these technologies can work. There are three or four different kinds of technologies for liquid from coal which have already been proved. The Chinese are already getting oil from shale. They are doing that right now.

The South Africans in their SASOL I plant have, for years, been getting over 20,000 barrels a day of liquids from coal.

The old town gas used to be the low Btu process, before the days of natural gas. They used to run an old town gas which was a very simple, low Btu gasifier process. There is not any question that it will work, but the question is the economics.

As far as the economics are concerned, the administration estimate for synfuels production in 1979 dollars is as follows, as to what the cost will be: Coal liquids, \$38 a barrel; shale oil, \$32 a barrel; coal gasification, \$36.50; biomass, \$38 a barrel; for an average of \$36.10 a barrel.

The distinguished Senator from Washington was talking a little earlier about the spot price of oil this last week hitting \$48. In effect what we would be doing through this Synfuels Corporation is underwriting what we believe to be the future price of oil, worldwide. This Government can do that through this synfuels corporation and make a big guarantee of that price. If they are right and if the price of oil goes up to that price, then it does not cost the synfuels corporation or the American people one thin dime.

On the other hand, if they are wrong and the price of oil is a lot lower, then the American public as a whole is the big winner, because even though it has cost a little bit in the synfuels corporation, the American people win because the price of oil has been lowered because of this.

Any expert I know about will tell the Senator that the average price of oil through the latter half of the 1980's, and certainly into the 1990's, is going to exceed \$36 a barrel in 1979 dollars. It is almost there now. We are heading that way in a great rush. But for a company to spend this \$2 to \$3 billion, they cannot speculate. It is a highly questionable thing where that price will be. They have to have some guarantee. That guarantee is what we are about in the Synfuels Corporation.

Loan guarantees are important, too, so that not just the five biggest companies can get into it. We want to spread it around a little bit. It is not a mom and pop thing for the little partnership down the street, but we do not want it limited just to Exxon. That is one of the reasons we have loan guarantees in the bill.

But with all that, I do not have any doubt at all that it will work and we can produce a tremendous amount of energy in an environmentally acceptable way and produce it fairly soon.

Mr. DOMENICI. Could I say to my good friend, also, that in South Africa, as I indicated, because they consider their country to be very

vulnerable, they have gone on with developing it. An American corporation is the engineering, design, and construction company for SASOL II in South Africa. This is American talent, American know-how, being used over there, yet not over here.

Mr. STENNIS. I thank each of the Senators.

May I make this comment, too? I hope the Senators think that now there is a better environment and understanding of the need than there has been, so as to bring a bill along this line to a conclusion and get it enacted into law. Is the Senator strongly hopeful on that score?

Mr. JOHNSTON. I am strongly hopeful. I believe that the Senate, as the House of Representatives, finally recognizes the seriousness of the proposition.

I do not know if the Senator saw the morning's paper. There was a poll just taken of the House of Representatives. They were asked the question—let me get the precise wording, because I think this is quite interesting.

Mr. STENNIS. If the Senator will excuse me, I had already heard him deal with that.

Mr. JOHNSTON. That says 62 percent of the House Members think we are ready for a very sharp upheaval. I think perhaps the number who think that in the Senate may be even higher. I happen to hold to that view. I think we are headed toward that social-economic upheaval. I think we are in it right now. A 15-percent interest rate. I think, is a social-economic upheaval. I do not see any end to that. I think it is caused directly by energy.

Mr. STENNIS. I thank the Senator again and make one comment: I have been through this bill carefully. I think it is so important, and I feel encouraged that we have this bill ready for consideration. I ran across the old stumbling block, as I call it—as I see it—of these provisions in here that one House or two Houses may veto this or do this or do that. I am afraid we are setting some bad precedents there that may look necessary, but we could well find ourselves encroaching so much on our own powers, giving to some future half of this body plus one the authority to undo in part what we have done.

Also, as to the executive branch, when we have the three distinct, separate units of our system, I think that we ought to try, with great deference, to work out a better way to avoid here what could be a pitfall, although I can see it is a mighty good instrument, sometimes, to get agreement on matters.

I point that out with great deference.

I thank both of the Senators. I expect to back them in this bill as far as I can because of need. Nothing like this has ever happened in peacetime, nothing; it is because of need. If the Senate will suspend some of the environmental laws so as to give the bill a little more power, that would be helpful.

I thank the Senators.

Mr. PROXMIER. Mr. President, the Senator from New Mexico questions the motives of those who support our bill. I must point out that industry groups supporting the Banking Committee substitute do not oppose synfuels, and the oil and coal industry groups have indicated clearly, particularly the coal industry, that they want the

Banking Committee funding to be increased. They favor significant funding for synfuels, but they think limited guarantees do the best job.

Also, the small business community emphatically favors this bill. As a matter of fact, they do not come in with just what a few of their officials feel. The National Federation of Independent Business has taken a poll in every State of the Union. They find that in every single State, their members oppose the Energy Security Corporation, with one exception, Connecticut. Overall, nearly 60 percent of their members oppose this approach.

I point out also that the Committee for Economic Development, one of the earliest, most enthusiastic, most expert supporters of synfuels, favors the approach in the Banking Committee bill. The spokesman for them, Roderick Hills, the former Chairman of the Securities and Exchange Commission, a man of outstanding integrity, has favored synfuels. As he points out, he and his organization have, for 2½ years, pleaded with Congress to provide a sensible approach.

They think our approach will get synthetic fuels working much better; that it is far less inflationary; that it will not involve this tremendous commitment of \$88 billion—\$88 billion—for this one effort.

We wonder, all of us in this body, how the Government grows so big. How does it happen? It is always a good cause—it may be education on the one hand, may be the cities, and you can always make a powerful argument that we ought to go ahead and spend a lot of money. Mr. President, this is another example. The experts tell us that the best way to handle this problem is to phase it in—phase it in carefully, phase it in so we know where every one of our dollars is going and not just throw \$88 billion at it.

I do not think that there is really a scrap of testimony before either the Energy Committee or the Banking Committee that says we ought to have \$88 billion, not \$60 billion or not \$40 billion, or not \$90 billion, for that matter.

Furthermore, Mr. President, do not let anybody kid you by saying this is not an \$88 billion bill. It is exactly what it is. Let me read on page 112, section 152(a), starting on line 15:

SEC. 152. (a) The Corporation may not incur obligations or make commitments, including administrative expenses and other operating costs, in excess of \$88,000,000,000 in the aggregate: Provided, however, That prior to the approval of a comprehensive strategy pursuant to section 122 such obligations shall not exceed \$20,000,000,000 in the aggregate.

Now, if we go back to the sections referred to here, it says that before the additional \$68 billion will be added to the \$20 billion, which would be made immediately available, the following procedure has to be followed. This is on page 81 of the bill, beginning on line 17:

(c) (1) Not later than three years after the effective date of this Title, the Corporation shall submit its proposed comprehensive strategy to the Congress. Such strategy shall be deemed approved after sixty calendar days of continuous session of the Congress have expired following the date of such submission unless either House of the Congress has, during such sixty-day period, adopted a resolution disapproving such proposed strategy.

What that means, of course, is that as soon as they make a report, that report will go to the Energy Committee and it is up to the

Energy Committee as to whether to report it. I just checked with the Parliamentarian. The Parliamentarian indicates that the Energy Committee can bottle it up. If the Energy Committee favors spending this money, they can sit on it. What can we do if we want to call it out? The Parliamentarian could not think of anything to do.

Suppose it comes out and three Senators decide to filibuster the disapproval resolution; what can we do? All they have to do is get 41 Senators to oppose cloture and they have it made, even though a majority solidly feel that we should not spend this \$88 billion. There is no cloture provision in this bill.

So, A, it can be bottled up in committee; B, it can be filibustered on the floor.

Anybody who thinks that we are going to stop this later on and that, really, we are only providing \$20 billion now, not \$88 billion, has not read the bill. The bill makes a commitment of \$88 billion.

Mr. President, I think, above all, that we should not fool ourselves that the Banking Committee bill is antisynfuels or that its supporters are antisynfuels. We are prosynfuels and we argue that the way to proceed is an orderly, measured way so that we know what we are doing.

The purpose of this is to develop information so that the private sector will be able to move ahead without undue risk, which no prudent businessman can take in a new technology until it is proven and operating on a commercial basis. The most prudent businessmen, all the ones I have listed, and also the chamber of commerce, say this is the prudent way to move, to go ahead.

Mr. President, let me also respond to a point made by my good friend from Louisiana (Mr. Johnston), who criticized the Banking Committee substitute on the grounds that authorities are parceled out all over the Government—to HUD, to GNMA, to the Commodity Credit Corporation, and to the Department of Energy. I must point out to my good friend that that is an apparent misunderstanding. These authorities do not involve synfuels. The CCC gets authority for alcohol fuels. After all, with respect to alcohol—which, of course, is primarily a farm product—there is some reason for involvement of the CCC.

GNMA gets authority for conservation. HUD gets authority for solar. The Energy Committee bill puts many of these authorities in the same place the Banking Committee does. So we should not labor under the misimpression that our synfuel title parcels authority for synfuels all over the Government.

Mr. President, the No. 1 issue facing this country, certainly domestically, and I think above all others, is inflation. I do hope Members of the Senate have a chance to read the Banking Committee bill because, as we are able to presume, there is every reason to expect that the Energy Committee bill, this \$88 billion proposal, this crash program, is certainly going to result in very serious inflation. It is inevitable.

Take the availability of professionals in the field alone. There are today about 45,000. The number of professional people who would be brought in to handle this synthetic fuels crash program is an additional 24,000.

How will they be able to get them, to train them and put them in the positions they should be in, without serious inflation, without

tremendous adjustment, and without very serious problems in the field where they would be taken from?

In addition to that, this \$88 billion, of course, is one whale of a lot of money. It involves a draining of financial resources from other areas.

In our economy, when there is a super demand for resources, prices go up. All of the specialized equipment necessary for developing shale oil and liquefying or gasifying coal on the scale proposed by the Energy Committee will have a tremendous inflationary factor involved in it.

As a matter of fact, the estimates we have are that if we proceed on the crash basis the committee proposes, the cost of the plants could be 50 percent more than under a more deliberate program.

Mr. President, I do not think anybody proposes—I hope not—that we have the Government move in and take over synfuels. We are trying to develop the commercial experience which will enable free enterprise to understand what the technology costs are, what the economic situation is, so they can go to their bankers, and others, and secure private funds and move ahead in the private sector on a profitable basis.

We submit the Banking Committee program, which is supported overwhelmingly by the business community, particularly the people who have had a chance to look at it, could be phased in on an orderly basis.

This is, I assume, not as appealing, glamorous, or exciting, but a far better approach.

The Senator from Washington earlier said, How can a Senator go home and tell his constituents he is opposed to this \$88 billion crash program?

I want to know how a Senator can go home and tell his constituents how he favors spending another \$88 billion, or involving the Federal Government to move in an area, when our overwhelming problem is inflation and the size of the growth and burden on Government and the huge part Government plays in inflation.

Mr. President, I suggest the absence of a quorum.

(Mr. Levin assumed the chair.)

Mr. JOHNSTON. Mr. President, if the Senator will withhold, let me clear up one point here about which there may be some confusion. That is, the question of the amount of the funding.

Mr. President, the amount of the funding in the Senate bill is not \$88 billion. The amount of funding in the Senate energy bill is \$20 billion, of which \$1 billion is biomass. The \$88 billion figure, Mr. President, amounts to, really, nothing more than a goal which will be implemented by later action of the Congress.

Mr. President, before that second phase which the \$88 billion goes to finance can be implemented, three things must happen. First, a report must be submitted to the Congress, submitting a comprehensive strategy. This is from the Synfuels Corporation, an overall comprehensive strategy. That strategy will outline what their plans are with respect to phase two of the synfuels development, after more is known about the economics, the environmental impact.

So, first, the report must be submitted. Second, Congress must be given the opportunity for a one-House veto. All it takes is one House to kill that strategy and they must start all over again.

Finally, Mr. President, if that is all approved, then it cannot be implemented without appropriations from the Congress.

So, in truth and in fact, phase 2, the \$88 billion phase of this corporation, is nothing more than a sort of long-term goal to which we all aspire, but for which there is no present authority for action provided for in this bill.

Mr. PROXMIRE. Will the Senator yield on that point?

Mr. JOHNSTON. Certainly.

Mr. PROXMIRE. How can the Senator argue this is not an \$88 billion bill in view of the plain language on page 112, lines 15 to 29, where it says, \$88 billion.

It does provide that the provisions the Senator suggested will be adopted.

But I point out, No. 1, the report which triggers the additional \$88 billion above the other can come down any time.

Two, even if it goes the whole 3 years, what will we know, how many synfuel plants will be operating to be in a position to make a judgment as to whether or not to go ahead with the additional \$88 billion.

Mr. JOHNSTON. My answer to the question is just precisely what I said, that \$88 billion is nothing more than a long-term goal because it cannot be spent without the action of Congress.

In other words, we are not giving this energy corporation \$88 billion. We are simply giving them the right to file a report asking the Congress to appropriate the \$88 billion.

If we struck that out, it would make very little difference because the corporation, without that authority, can do as much as they can with it, which is—

Mr. PROXMIRE. Will the Senator from Louisiana join the Senator from Wisconsin in striking that out?

Mr. JOHNSTON. I frankly do not think it is particularly important to have the \$88 billion goal in there.

Mr. PROXMIRE. Will the Senator from Louisiana join the Senator from Wisconsin in striking that out?

Mr. JOHNSTON. The importance of it is this. If we are going to ask a company to come along and spend \$2 billion to \$3 billion, which, by the way, is the entire amount of funding of the Banking bill for one plant, then we have to show we are going to have a long-term commitment of great proportions to synfuels.

I think the \$88 billion is symbolic of a commitment of the country to synfuels.

Mr. PROXMIRE. Is the Senator arguing the additional authorization would be needed to provide any sum up to \$88 billion?

Mr. JOHNSTON. Yes. An authorization of appropriations—

Mr. PROXMIRE. Sure.

Mr. JOHNSTON. If the Senator—

Mr. President, if the Senator is going to ask a question now, please give me a chance to answer.

Will there be an additional authorization? Indeed, yes. Both an authorization for appropriation and actual appropriation, which is the precise way we are doing with the \$20 billion.

Under the phase one, we have just passed out of the Senate authorization for appropriation in the amount of \$20 billion.

Now, the Senate and the Congress will have to come back and actually appropriate as against those authorizations for appropriations.

Mr. PROXMIRE. What assurance does this give business that they will get \$88 billion, if this is only symbolic. This will be the second time, in the past 3 weeks that we adopted symbolic measures. We have had a symbolic action of many billions of dollars for synthetic fuels—

Mr. JOHNSTON. There is no assurance—

Mr. PROXMIRE. Eighty-eight billion dollars is only symbolic. As I say, why not take it out? They would have to be pretty stupid businessmen if they are persuaded by symbolism, if it has to be appropriated again.

Mr. JOHNSTON. Of course, business has no assurance \$88 billion will ever be appropriated. We do not know if it is necessary, or not. It is a symbolic commitment to synthetic fuels.

Is it important? Frankly, I do not think it is essential.

I do not think it is essential, and if the Senator wants to take it out, I would vote against it. If it comes out of the bill, I would not cry about it because it is not essential, but it is an important symbol.

But for the Senator to say this is an \$88 billion bill is simply not correct. It is not. It is a \$20 billion bill.

Mr. PROXMIRE. Any time the Senator introduces legislation which says that the Corporation may not incur obligations or make commitments, including administrative expenses, and so forth, in excess of \$88 billion in the aggregate, I assume they cannot make them up to \$88 billion.

That is what it says. They can make commitments. Those will be of a corporation which has been sanctioned by the Congress of the United States, established by law. On the basis of all the experience I have had, I think the Senator from Louisiana would have to agree that once those commitments are made on our behalf and we have provided the legal framework for it, we honor it.

Mr. JOHNSTON. The Senator knows that those commitments cannot be made.

Mr. PROXMIRE. We tell them they can make commitments.

Mr. JOHNSTON. Mr. President, who has the floor?

The PRESIDING OFFICER. The Senator from Louisiana has the floor.

Mr. JOHNSTON. Mr. President, I will be glad to yield for questions; but if the Senator is going to ask questions, he will have to wait for the answers and not make a speech. I say that in all goodwill to my friend from Wisconsin.

Mr. President, I think this question is answered very well by section 152 of the bill, which reads as follows:

The Corporation may not incur obligations or make commitments, including administrative expenses and other operating costs, in excess of \$88,000,000,000 in the aggregate: *Provided, however,* That prior to the approval of a comprehensive strategy pursuant to section 122 such obligations shall not exceed \$20,000,000,000 in the aggregate.

So until Congress approves the strategy, nothing can be done; no action can be taken to expend money to make obligations or anything else. After that strategy is approved by Congress pursuant to the one-House veto method, then the Synfuels Corporation, in effect, is empowered to ask Congress for appropriations. Unless those appropria-

tions are forthcoming, no money can be spent, because no money is provided.

Mr. DOMENICI. Mr. President, will the Senator yield.

Mr. JOHNSTON. I yield.

Mr. DOMENICI. I would like to ask my good friend from Wisconsin—

Mr. PROXMIRE. Before the Senator does, let me follow up—

Mr. DOMENICI. In his earlier remarks, the Senator from Wisconsin quickly referred to all those who supported his bill. I hope he will tell the Senate whether or not he thinks that \$3 billion is sufficient to bring a synthetic fuels program on board.

It is my understanding that the coal association does not support our approach, but it does not support the approach of the Senator from Wisconsin, either. They would rather have it, but the \$3 billion will not do it.

I make that point because the Senator from Wisconsin seems to be saying it is inflationary for our bill but not for his, even though almost everyone believes that any program that is going to work has to be bigger than the one in his bill.

Mr. PROXMIRE. The House bill provides \$3 billion.

I think the point the Senator makes is a good point, and it is a point we are conscious of.

We were told by a number of people that it would have to be bigger than \$3 billion.

Speaking more for myself, I would be prepared to support an increase to \$10 billion or \$12 billion, something in that area.

However, I point out to the Senator that our bill does provide \$3 billion; but if that is a loan guarantee, the \$3 billion works out to a total of \$9 billion in Federal commitments as compared with the Energy Committee bill, because we have \$1 of appropriation necessary for \$3 of guarantee. So it is not really \$3 billion in the same way that the Energy Committee bill would be \$3 billion.

However, even allowing for that, I would be happy to support a somewhat larger amount.

I think the fundamental difference between the two bills is the fact that ours is a carefully phased-in approach without any commitment—implied, symbolic, real, or whatever—that we would provide another \$68 billion.

The concluding remark of the Senator from Louisiana, as I recall, was that, on the basis of this language on page 112, lines 15 to 21, we would have to appropriate additional funds, but he implied that we would not have to authorize additional funds. This is to authorize \$88 billion, with the appropriations process having to go to work.

Mr. JOHNSTON. No. The mechanism used under this bill is to have passed by the Appropriations Committee and to have passed by Congress authorizations for appropriations and later to come in with the actual appropriations of budget authority.

It is an unusual kind of legislative animal, but it is what we have done recently with respect to the Interior Appropriations Committee bill, which is now in conference.

Mr. PROXMIRE. What gives me great trouble—and I hope it will give other Senators concern—is that the language says that the Corporation

may not incur, and the implication is that it may incur that much, in excess of \$88 billion. If they make commitments and incur obligations of \$30 billion, \$40 billion, or \$50 billion, what are we going to do? Will we say we are not going to authorize the money—forget it?

Mr. JOHNSTON. Will the Senator read the second paragraph?

Mr. PROXMIRE. The second part of the paragraph or the second paragraph?

Mr. JOHNSTON. It says:

Provided, however. That prior to the approval of a comprehensive strategy pursuant to section 122 such obligations shall not exceed \$20,000,000,000 in the aggregate.

Mr. PROXMIRE. As I point out to the Senator, section 122 goes back to Corporation's report, and the report triggers this additional \$68 billion; and the report can be held up by a filibuster or by the committee. The Senate is not in the position of being able to exercise its authority by effective veto. So far as I know, the Energy Committee and the House Committee can bottle it up. So that the committees that favor this would be able to stop a majority of the House or the Senate from preventing this kind of commitment from going into effect.

Mr. JOHNSTON. There are so many safeguards that you would have to have two actions, basically, of the Appropriations Committee before the \$88 billion could be authorized, which is the precise method we are following with respect to the present appropriations bill pending in the conference committee, which will be approved.

Mr. President, the Senator from Wisconsin, after having just stated that the Banking Committee bill is well thought out, is now inclined to change his bill from \$3 billion to \$10 billion or \$12 billion. If this bill is so well thought out, how can the Senator be here, on the eve of bringing it up on the floor of the Senate, talking about increasing it fourfold?

The fact is that it is not well thought out. A \$3 billion program will not—and never would—put together a synfuels strategy which would produce one-of-a-kind commercial demonstration such as this country needs. It never would have; \$10 billion or \$12 billion will not do it, either. It is going to take the full \$20 billion.

It is true that the mechanism under the Banking Committee bill provides that \$1 of appropriation can give you \$3 in loan guarantees—not \$3 in price guarantees, but \$3 in loan guarantees—which means, simply, that we do not know what \$3 billion means. Three billion dollars could mean \$9 billion; \$3 billion could mean \$3 billion, or anywhere in between.

If you increase it to \$10 billion or \$12 billion, using the mechanism that the House has suggested, that could mean anywhere between \$12 billion and \$36 billion.

If that is a well thought out bill, one that can vary from \$3 billion at the low spot to as high as \$36 billion, if amended, it is the kind of pig in a poke that I do not want to buy on the floor of the Senate.

Mr. PROXMIRE. Mr. President, will the Senator yield?

Mr. JOHNSTON. I yield.

Mr. PROXMIRE. The Senator has interesting standards of judgment. He would say that the \$3 billion, because we are willing to increase it,

or I am willing to consider increasing it, indicates that it is not very well thought out.

I point out, in the first place, that the House of Representatives, the whole House, after debate, adopted a bill providing a bigger goal than the Energy Committee does, in terms of the amount of barrels a day that would be produced eventually from synthetic fuels, and they provide \$3 billion.

I point out, also, that I do not think anybody is very impressed by the \$88 billion or the \$20 billion. I submit that the problem here is that we just do not know. Therefore, the prudent way to proceed is with a limited amount, which is what the business organization and the conservation organizations together argue we should do.

The Senator is saying that the sky is the limit—\$88 billion. Should we not proceed in a more careful and thoughtful way and take the lower figure?

Mr. JOHNSTON. The Banking Committee bill says that we should have a dozen plants, with not more than six shale and not more than six coal.

Mr. PROXMIRE. We say that is the maximum. We do not say that it has to be a dozen. We say that 12 is the limit. At one point we had six in committee and we decided after considerable debate and discussion we make a larger provision to incorporate a diversity of technology.

Mr. JOHNSTON. Very well. Under either loans or grants, or whatever mechanism the Senator suggests, how many of those plants could be brought on line with \$3 billion in authority?

Mr. PROXMIRE. Under guarantees obviously three times as many as you could without the guarantee approach.

Mr. JOHNSTON. Will the Senator agree with me somewhere between one and three?

Mr. PROXMIRE. The Senator may be correct, depending, of course, on the technology. You would need probably, as I say, \$10 billion in order to provide these plants. I do not concede you necessarily need \$10 or \$3 billion to bring a single plant into fruition. You may need that in some cases. You can do far less than that in others. It depends partially on the size of the plant, the readiness of the technology, and the amount of Federal guarantees needed.

Mr. JOHNSTON. The Senator is saying that the \$3 billion provided in the Banking Committee bill will not achieve the goal stated in the Banking Committee bill. If a dozen plants is the goal then it will not achieve that very clearly. Is that not correct?

Mr. PROXMIRE. It does not, if we go that far, if we got to a dozen, but as I say that is a maximum. There is no reason we cannot provide that (A) in the bill or (B) if we prefer to do it at a later time. I think it is properly provided in the bill. Others may disagree with that.

Mr. JOHNSTON. How many would the Senator recommend to the Senate or how many would the Banking Committee recommend?

Mr. PROXMIRE. I think as many as are ready for commercialization. We have a situation now where we do not have any commercial operations with synthetic fuels in this country at all. none. It may be that one, two, or three will come on that have the efficiency, and are sufficiently ready to go ahead, and it may be that we have more than that.

Mr. JOHNSTON. The Senator then disagrees with the Energy Committee when we say that a goal of 10 plants is realistic in phase 1.

Does the Senator and the Banking Committee disagree with that or does he have another view and if so what is that view?

Mr. PROXMIRE. Where does the Energy Committee say that—10 plants?

Mr. JOHNSTON. The \$20 billion, as stated in our report, is the appropriate sum for 10 commercial demonstrations. Of the commercial demonstrations, they have not, of course, been picked at this point. But the House Banking Committee says 10 to 12. I had thought that the Senate Banking Committee had 10 or 12.

Mr. DOMENICI. Eight to twelve.

Mr. PROXMIRE. The Banking Committee says up to 12. But I wish to see the documents that you need 2 billion or 3 billion, and both figures have been used, for a commercial plant as a minimum. I have not seen that.

Mr. JOHNSTON. Cameron Engineering said it and Pace Engineering said it, and I believe the Senator's own report refers to those figures, if I could have a moment.

Mr. PROXMIRE. It could go that high certainly, I think, in some cases; of course, it could be substantially less than that.

Mr. JOHNSTON. We are talking about a 50,000 barrels a day commercial demonstration, and \$2 billion to \$3 billion in 1979 dollars is the figure that virtually almost every expert uses. Does the Senator disagree with that?

Mr. PROXMIRE. It could be less than 50,000; 50,000 is the maximum size for a plant in our bill. We may be able to prove the technology with a smaller plant. They do not all have to be 50,000.

Mr. JOHNSTON. No; but using the methodology determined by the Congressional Budget Office, which assumed that the initial subsidy would begin about 1987 and decline to zero by the year 2000, then based on current world oil prices, there is implied a cost to the Government of \$4 billion to \$5 billion for every 100,000 barrels of production. If you want to cut that in half it is \$2 billion to \$2.5 billion for every 50,000 barrels. That is using the methodology of the Congressional Budget Office and, of course, making certain assumptions with respect to cost.

But, take your choice, using the Congressional Budget Office, the Senate Budget Committee report, Cameron Engineering, Pace Engineering, almost any of these engineers, and we have a whole plethora of reports on them, and they all indicate cost ranges in this size, and the very point is that take most any engineering firm you want to and they will say that under the banking bill, under the price guarantees, you get about one plant in the 50,000 barrel a day capacity.

Mr. PROXMIRE. The Senator is an excellent lawyer and I see why he was a smashing success as a lawyer and why he is such a great Senator. What he is doing is concentrating on our proposal. The fact is that both bills have similar problems. Our bill provides a certain amount and the Senator may shoot all day at that, and his bill provides \$88 billion.

Mr. JOHNSTON. \$20 billion.

Mr. PROXMIRE. Now I say to the Senator where are the documents for the \$88 billion? I can read on page 112. It says \$88 billion. They can make commitments, they can incur obligations up to \$88 billion as soon as that report clears its 60-day period, and we have to come in,

as we always do when commitments are made, and obligations are made, and provisions are made, and obligations are made, and provisions are made. Where is the justification for the \$88 billion? How many plants would that be, 40, 45? Why do we need that many?

Mr. JOHNSTON. The second phase, and let me explain it again—I have explained it just as clear as the noonday sun on a cloudless day, and every time I have the point made the distinguished Senator—

Mr. PROXMIRE. The Senator has a stupid colleague here.

Mr. JOHNSTON. Every time I think I have the point made with the distinguished Senator from Wisconsin he comes back and brings out the same old tired \$88 billion figure.

Mr. PROXMIRE. That is right.

Mr. JOHNSTON. I said over and over again you cannot spend more than the first phase money until after Congress approves it, and then there are at least two mechanisms for congressional approval: First approval of the report and, second, the appropriation of the money. And we intentionally divided synfuels into two phases. Phase 1 is making of the building of the one-of-a-kind commercial demonstrations to see if they work. Phase 2 is to build the replications of high Btu gas. If this is the best technology, or one of the best, then we will come in and build 4 or 5 or 10 or whatever the number is of replications of those plants. The same is true of the shale oil and solvent-refined coal and all the rest. The ones that work best under phase 1 we will build. Not until then. We made a very deliberate distinction between phase 1 and phase 2 with a deliberate decision not to fund phase 2, and it is absolutely clear. It is to the very heart, to the very essential nature of our bill, that you do not start phase 2 until you have the information provided in phase 1 and until Congress signs that report. That is the real difference, but we do provide \$20 billion in authority for phase 1 which is the amount necessary to do the job.

We are not trying to kid the Senate. We are not trying to kid the American people by holding out some carrot of \$3 billion and acting as though that will do the job. We know that it will not do the job. No engineer says it will do the job. We do provide enough for phase 1, and we are going to do phase 1 and then stop, read the report, study it, and approve it before we can go into phase 2, and then Congress must appropriate the money.

Mr. PROXMIRE. If the Senator will yield once more, and then I will sit down and my good friend from Colorado is prepared and I am sure he wishes to talk on this subject. I just wish to make it clear that my position is this. When you look at the Energy Committee bill it is clear that if we pass this bill we are going to make \$88 billion available with two very, very thin protections. Protection No. 1 is that we are requiring the Corporation, before they can obligate the \$88 billion, to make a report. They can obligate \$20 billion but the additional \$68 billion requires a report, a report involving anything that will satisfy the Energy Committee, in effect, because once that report is filed it sits in the Energy Committee.

The Parliamentarian told me he knows of no way we can get that report out.

Say we get the report out. Then there can be a filibuster on the part of Senators to block for 60 days the opportunity for us to act on that

And even if we disapprove the report, the Corporation is ordered to come back within 90 days.

The other provision is that we do not have to appropriate this additional \$68 billion. Once these commitments are made and we are telling this Security Corporation they can make commitments, I do not know of another Senator who would not support it, including me. I may think the commitment was very bad, but if the full faith and credit of the United States of America is behind it and we have authorized and given this corporation to make that kind of commitment, incur that kind of obligation, then we will stand behind it unanimously.

There is no protection at all.

Mr. President, I yield the floor.

Mr. DOMENICI. Mr. President, let me say to my friend from Colorado, who wishes to speak, that I will take 3 minutes and then I will yield the floor. I want to just make a couple of points here with reference to some statements made by the Senator from Wisconsin.

First of all, while I generally appreciate the Senator's concern, I say to my good friend, about inflation in this country that I am firmly convinced, as I indicated in my opening remarks, that in the final analysis the biggest contributor to inflation will be proved to be America's energy dependence and the \$70 billion we are now sending overseas to buy foreign oil, and we will not solve inflation or the high interest rates until we begin to control our energy destiny better than we have up to now.

So since I wholeheartedly believe that, I have some people who support that proposition, I believe we must as soon as possible make a frontal attack on our dependence. It appears to me that to make a frontal attack on our dependence and move toward independence that we have got to utilize these huge quantities of resources we have got at home, and if that means we must spend, cause American industry to invest with our guarantees and the like in synthetic fuels, so be it.

But that would just be a theory of nondependence or attacking dependence. However, the major task force study that we had done in the Budget Committee, as a condition precedent to the Energy Committee going ahead with this bill, concurred that a phased-in program of \$20 billion over the next few years would not be inflationary, and they so state on page 426. The experts and CBO contend that that would not be significantly inflationary. In fact, let me see how much they say—one-tenth of a percent to two-tenths of a percent added to inflation as the absolute high they say as a matter of expert study.

Mr. PROXMIRE. Mr. President, will the Senator yield?

Mr. DOMENICI. Two other points and I will then yield the floor.

I hope everyone understands that the Banking Committee has some new faces, some very distinguished new faces—one of whom is waiting here to speak—but it sings the same old tune. New faces, new players, same melody, same tune.

They had an opportunity in October of 1975 to consider doing something different to produce synthetic fuels. The consequence was, "No, let the same old bureaucracy, the Department of Energy, the Department of Transportation, HUD, just give them a little more authority and they will bring synthetic fuels onboard." Same old tune.

The urgency is greater now than then, the dependence is greater, inflation is higher, the price of crude oil is higher, but we have not brought any synthetic fuel onboard. The same old tune. A few more dollars and a little bit of recognition that maybe we ought to get serious.

So 4 years have passed, and we have done nothing. Inflation has become rampant, and now we have the argument, "We don't want to create anything new. Use the established bureaucracy with loan guarantees and the like, and somehow or other, even though it has not worked in the past, it is going to work now."

I just say to the new members of the committee who now have joined with the good chairman—and the Business Roundtable and big business and Exxon in saying it will really happen, "Just leave us alone a little while longer,"—I commend you for your consistency.

I yield the floor.

Mr. PROXMIRE. Mr. President, I just want to respond to my good friend from New Mexico. In the first place, Mr. President, he said \$20 billion would not be inflationary, and he read off some people who gave that opinion as economists, and I suppose if you just tried to increase the budget by \$20 billion over 10 years that probably would not have more than a marginal inflationary effect—some, but it would be relatively slight.

But we are not talking about \$20 billion. We are talking about an \$88 billion program, as I have tried to make clear over and over again, and the inflation that occurs is in this particular industry because it has limited personnel available and there is limited equipment available. Much of this has to take place in the State of my good friend, the Senator from Colorado, and it is not surprising that the two Senators from Colorado, one a Republican and one a Democrat, and the Governor of Colorado are opposed to the bill. This is the State where it is going to take place. They know their State, and they understand it. They know how disastrous the results are going to be, how ravaging they will be. It is going to be very inflationary in Colorado, inflationary in this industry, a misallocation of resources and great inefficiency because we have a crash program.

Now, my good friend from New Mexico also talked about the Rockefeller program of \$100 billion, and why the committee did not go for that in 1975. Thank heavens we did not, I think all of us have second thoughts about some of the votes we have cast since we have been in the Senate. That is one where I have no second thoughts at all. It was a nuclear program not a synthetic fuel program.

DOE has spent millions of dollars in research over the past 3 or 4 years, and they have not been able to make the kind of breakthroughs they would like to make.

As I say, we are for synthetic fuels, but we want to develop them and do it in an orderly way.

I think we also ought to look at the fact that even if we develop synfuels and reach the goals the Energy Committee itself has set, how much of our energy needs will be met by synthetic fuels? Three percent. How much by solar? Solar could meet in the next 20 years 20 percent of our needs. How much do they provide for solar? Four hundred and fifty million dollars. Eighty-eight billion dollars for synthetic fuels. Does that make any sense? I think not, Mr. President.

I yield the floor.

The PRESIDING OFFICER. The Senator from Colorado.

Mr. ARMSTRONG. Mr. President, I wish this debate was being televised because, in my judgment, the issue we are addressing here today is one of the two or three really important policy decisions of this decade, and I think if the entire country was able to follow this on television there would be millions of people who would do so.

I am not one of those who thinks if we televise the activities of this Chamber every day, it would be a particularly enriching experience. But I think if a gavel-to-gavel coverage of this particular debate were available around the country, it would be a very meaningful thing. I believe those who would watch it would see a display of some of the most knowledgeable, some of the most precise, and some of the most eloquent arguments on both sides of this question.

I rise in support of the position which has been so admirably put forth by the distinguished chairman of the Banking Committee, Senator Proxmire, and I am going to reserve my opening statement and detailed remarks about the comparison between the Energy Committee's bill and the Banking Committee's bill until a little later. But I do want to put into perspective some of the things which have been advanced thus far during the course of the debate, perhaps in the nature of a rebuttal or at least by way of clarification.

I am glad that my distinguished friend from New Mexico is here because, in part, I am going to address myself to arguments which he has raised, and which I think deserve to be carefully considered.

I do so knowing full well that to engage the Senator from New Mexico on the floor is a task which is a formidable one because the Senator from New Mexico is one of the most skilled legislators in this Chamber and, in my view, possibly the most skilled legislator on the Republican side.

The Senator from New Mexico is one who is able to marshal not only facts but emotion. He has done his homework, and he has made a very, very good presentation of the case in support of the Energy Security Corporation.

I regret that he has done so because this will be one of the very few issues on which my friend from New Mexico and I will be on opposite sides of the question.

However, I think the arguments which he has raised in support of the Energy Security Corporation deserve to be carefully analyzed and, in my judgment, they will not finally withstand that kind of analysis.

I think if Senators and the general public will look carefully at the reasons that have been presented here today, and that I anticipate will be presented, they will conclude, as I have, that the Energy Security Corporation is not a good idea.

First of all, the proponents of the Energy Security Corporation have suggested that what we really have here is a choice between producing synfuel or not producing synfuel. As a debating tactic, that may be a very desirable contrast to make, but I would like to suggest that that is simply not the case at all.

What we really have in the two proposals advanced today and the other two alternatives which will be before the Senate within the month is a choice among alternatives which some of us believe offer a better,

surer, more economical, and more certain approach to producing synthetic fuel.

There is an old saying among lawyers, I am told, that when the facts are on your side you argue the facts, when the law is on your side you argue the law, and when neither is on your side you bang on the table.

That is what our friends on the Energy Committee are doing; they are banging on the table. They are saying, "It you are not for our bill you are not for synfuel."

I think we should not let that stand unchallenged, because I am here to tell you I am for synfuel. I was for synfuel last year, the year before that, and the year before that. Out in Colorado, we are proud of our synfuel and other alternative energy resources development. We are developing it, but many of us do not feel that the bill brought before us by the Energy Committee is the best way to do so. So I think for anybody to stand here and say, "The choice is between our bill and synfuel" simply is not supported by the facts.

Nor do I believe it is fair to characterize the situation before us as a choice between producing synthetic fuel or business as usual. I particularly would say to my friend from New Mexico that to say what we now have in this country is business as usual, with the implication that the free enterprise system has been left alone to develop synthetic fuel with little or no Government action, is simply not the way I see the facts.

Let us talk about the Energy Committee, by way of background.

For about the last 22 years, natural gas in this Nation has been very closely regulated. In fact, it has been regulated with increasing persistence, and an increasingly burdensome and complicated system has been evolved since 1958, when the Supreme Court upheld the right of the Federal Power Commission to impose price controls and other regulations upon interstate sales of natural gas.

When that happened, and the FPC began to impose those controls, several things began to develop. First, the consumption and sales of natural gas began to increase. Consumption of natural gas was artificially stimulated, and pretty soon a natural gas shortage developed. Within a few years this happened, and it was not long before those who favored increased Government intervention in the energy economy came forth with a predictable solution. Their solution was to bring an even greater degree of Government regulation over the energy sector of the economy; and that is exactly what we have done, the last such piece of regulation being the natural gas deregulation bill recently passed by Congress.

This was a scheme which, although it claimed to be a form of deregulation, in fact was exactly the opposite; it imposed for the first time Federal jurisdiction and regulation over intrastate natural gas where there was no shortage, by the way, where a free enterprise economy was working well, and imposed for the first time an additional 23 different classifications of natural gas.

So the pattern that we have seen in natural gas is a very simple one. We had abundance under a free enterprise situation, and as the Government has gradually imposed its will on natural gas, the shortage has grown worse and worse, until in many areas, in the last several years, we have seen school closings and factories shut down, which has had an increasingly severe effect.

■ **Mr. DOMENICI.** Mr. President, will the Senator yield on that point?

Mr. ARMSTRONG. Yes, of course.

■ **Mr. DOMENICI.** Maybe you would not agree, but it seems to me that since that new natural gas bill was passed, we have not had as many problems with natural gas in the country. Is that in any way related to the bill, or is that a phenomenon of something else?

■ **Mr. ARMSTRONG.** Well, I would say to the Senator that the connection, I think, is quite clear; that as we have imposed additional regulation, as the Government has entered more and more deeply into those aspects of the economy which have traditionally been within the scope of free enterprise, the result has been counterproductive.

■ **Mr. DOMENICI.** I do not disagree. I guess what I was saying is that there were many people, at the point in time when we came up with the compromise on the natural gas bill, who were saying all or nothing, deregulate or leave it like it is. I was one who said, "Let us do it gradually, and provide for a change sometime before we go totally bankrupt energywise."

I am just suggesting that we have had no natural gas shortages since we passed that bill which began to equalize the price. It seems like we are going to get a lot more production without having to go all the way to deregulation immediately.

I just wondered if you shared that observation.

Mr. ARMSTRONG. I think it is correct to say that we have not suffered shortages in the months since we passed that bill. However, I would say to the Senator that I think that was a most unwise piece of legislation. It solved a short-term problem by, in effect, picking off the gas that was in abundance in the intrastate market and making that subject, for the first time, to the interstate regulatory scheme.

However, that is not central to the argument that I am trying to develop. I am satisfied if I have reached the point of agreement with the Senator from New Mexico that, in general, the increase in Government regimentation over natural gas has been counterproductive; and I think we can agree on that.

Let me comment briefly on the situation that has developed in petroleum, because it is pretty obvious that the reaction of Congress over the last 6 years to the growing shortage of domestic petroleum has been to create a new Government agency—a number of new Government agencies, in fact—and a very complex scheme of regulation, including price controls, including all kinds of standards and compliances, and so forth.

I think the pattern can be read fairly clearly in the Record. I have at various times, inserted in the Record statistical documentation. I do not propose to do so today. But the message is pretty clear; there is an inverse relationship between the amount of Government activity and the amount of oil. The more Government we have, the less oil we have.

This brings me to the Department of Energy. After we had moneeyed around for 2 or 3 years trying to cope in some way with the worsening shortage of domestic petroleum and the growing dependence on the OPEC nations, somebody came up with the bright idea that maybe what we ought to have is a Department of Energy. Now, here was a proposal that had a certain superficial dynamic quality

to it. It sounded bold. It sounded like it was a progressive, dynamic step; and, anyway, as some people were saying privately, we have to do something, even if it is wrong.

So we created a Department of Energy, and in a very short period of time it began to spend \$13 billion a year. The first 12 months of operation, it promulgated 3,250 pages of regulations, and the results I think, clearly indicate that it has been a flop on every count.

The idea was to increase domestic production of petroleum, but in fact domestic production of petroleum has declined. The idea was to reduce our dependence on OPEC oil. In fact, we are more dependent on OPEC oil today than we were at the time the Department of Energy was created.

Some people said the idea was to hold down the price, and clearly that has not worked, either.

Then there is the question of the role of the Department of the Interior and other Federal land management agencies in the domestic energy production cycle. It is pretty obvious—and I know that my friend from New Mexico is keenly aware of this—that we would have a lot more natural gas and oil production today in this country if the Department of the Interior would just get off the dime and begin to grant some leases that have been requested long ago.

In my own State, we have documented something like 200 requests for oil and natural gas leases which have been applied for and which have not been denied, but which simply have not been granted, either. They have been in limbo, some of them for 2 years, 3 years, 4 years or 5 years or more. As a matter of fact, I have asked the General Accounting Office to conduct an investigation and the Senate Committee on Energy and Natural Resources to hold oversight hearings to see if we cannot break the logjam and bring this oil and natural gas to market.

I present all of these thoughts merely to set the stage for the debate which we are going to begin now on the question of the Energy Security Corporation.

At every step, every time somebody has perceived there was a problem in the production or consumption of energy, we have been presented with the alternative of a deeper and deeper Government involvement in the production, distribution, and consumption cycle. I would suggest to you that the record of this kind of involvement is very mixed at best. On balance, I think it is the opinion of most people in industry, a growing number of consumers, a lot of consultants, and most of the academicians and, I trust, a rising majority of the Members of the Senate, that the Government's heavy hand of regulation and tight controls has been very, very counterproductive.

So I do not think it is fair for the Senator from New Mexico to characterize the choice as between business as usual or the Energy Security Corporation.

I would suggest to him that one of the alternatives which I will propose at the right time is indeed not to continue the present environment, but to return more nearly to business as usual and to remove some of the existing restrictions which have so severely hampered the development of energy of all kinds, including specific development of synthetic fuels.

Let me comment on what some of those restrictions are.

Mr. DOMENICI. Will the Senator yield?

Mr. ARMSTRONG. I am very happy to yield.

Mr. DOMENICI. The Senator knows I have the greatest respect for him, not only as a Senator but as a person, and about his ideas for our country and his logic of Government. There is very little difference between the Senator and myself in terms of the free market, incentives, Government as a burden rather than an asset in terms of independence, and production in this country. But I want the Senator to know that when I speak of business as usual, I mean the reality of today's economic environment, including whatever it is that Government has done, mostly of a negative nature.

When I look at that, I ask myself, how can we get from there to a more free, more incentive laden, and economically-sound environment where the private sector will be turned loose to do some things?

I come down on the side that we have to take the pragmatic approach. I do not mean business as usual in the sense that the private sector initiative is in a posture that is normal to itself and customary if it is going to do its job, but, rather, the reality of where we are. It is in the aspect and knowing that we cannot change all the things that put us into this posture that forces me to look to ways to utilize more quickly the energy we have. It is in that context that I used the word.

Mr. ARMSTRONG. I appreciate the Senator's explanation. He has put it into good perspective. Perhaps it is fair to say I am more optimistic than the Senator from New Mexico about the prospects of alleviating or repealing much of the regulatory burden that has presented such a terrible problem in the development of energy, particularly synthetic fuels. I would like to take a moment to share with my colleagues in the Senate some of the facts about the development of synthetic fuels out West, particularly in my own State of Colorado.

In Colorado we have been working on oil shale for a number of years, and I can report to the Senate there are at least two and possibly three companies that are right on the verge of producing oil from synthetic sources on a commercial scale.

Union Oil Company has testified before the House Ways and Means Committee that they are prepared to go forward and have said in effect, "Look, as soon as you do the one thing that we feel is called for we will be ready to start building our plant to produce synthetic oil from shale on a commercial scale practically the next Monday morning, when we start building the plant."

The recommendation they have made is in fact for \$3 a barrel tax credit, a proposal which has been endorsed on two occasions by the Senate and which is now pending in the House of Representatives.

Another company has, for some time, been asking permission of the Department of Interior to build on a tract of land which they think is particularly well suited to the development of oil shale according to what they call the three mineral process. They are not asking for any Government subsidy. They are not asking for loan guarantees. They are not asking for financing or a guaranteed market. They are not asking for anything except to have the Department of the Interior put this land up for lease.

For some time, in fact before this administration took office, I contacted the Department of the Interior and tried to get that lease

broken out. I have been pursuing it ever since. What we have discovered is that they are just unwilling to do it because it runs contrary to their pet schemes. They are unwilling to give somebody else the chance to develop this particular process.

Are these two isolated examples? Well, I say to my friends, They are anything but isolated. They are, in fact, a common denominator of practically every contact between energy developers and the Federal Government.

The Senator from Utah (Mr. Garn) shared with the committee the other day the details of a proposal which people in his State of Utah have come forward with to produce oil from tar sands. As we all know that is already being done on a commercial scale in Canada. It is a promising technology which seems to hold great possibilities for synthetic fuel development in the future in this country.

Again, this company is not asking for subsidy. They are not asking for technological help or research. They are certainly not asking for a new Federal agency to regulate them. What they are asking is simply that the Government put up for lease a tract of land on which they may conduct their operations, financed with private capital, with the product to be sold to the private market.

I stress that it is my understanding this Utah company is not asking even that the particular tract of land be given to them or leased to them, but simply that it be put up for bidding on a competitive basis for leasing for this purpose.

Well, those are three examples and I can cite a number of additional instances in which development of energy has been hampered by the existing governmental structure. But it puts into perspective one of the real choices that we are confronted with in this legislation and the other energy bills that are coming down the pike over the next several months, the choice between more Government, the creation of a new energy corporation, more regulators, more direct involvement by the Federal Government in energy production—that is one choice, which is before us in the energy bill—or the concept of deregulation, fast tract permitting, and fast tax depreciation, which is the preferable approach, in my judgment.

During the last several months Congress has called forth experts from energy, from the Nation's colleges and universities, private consultants, financiers, people who are knowledgeable in what it takes to produce synthetic fuels for all kinds of sources, tar sands, biomass, coal, different sources of that kind. We have said to them in effect, "Look, our country needs oil from synthetic sources. We need fuel of all kinds from synthetic sources. What does it take to bring synthetic fuel on line?"

The answers coming back have been strikingly similar. You will get a handful of answers. They say, "We have to do something about the regulatory environment. We have to cut the redtape. We have to have faster permitting. We have to have some restored incentives in the private sector from the tax standpoint." The two mentioned most commonly are accelerated depreciation of equipment and plant used in synfuel production and production tax credits, such as the \$3 a barrel credit I mentioned earlier.

Last but not least, these experts we have talked to have recommended that in some cases to get synthetic fuels of some form on line

we might have to have a guaranteed purchase program where we would, say, put up for bidding in various technologies the right to supply a certain specified quantity of synthetic fuel to the Government at a price to be determined by bidding.

How would that work? Well, very simply, we would say, "Look, we are going to buy α barrels of oil produced from shale. Who wants to supply it to us at \$28 a barrel?" In effect, we would have sort of an auction process.

That is what industry and other private experts have said is necessary.

Interestingly, out of all the testimony submitted to the task force of the Budget Committee, on which I was pleased to serve, submitted to the Banking Committee, where I sat through 3 days of extraordinarily interesting and meaningful testimony, the testimony submitted to the Energy Committee, and in fact the testimony submitted to more than 50 committees of the House and Senate, it is interesting that almost unanimously nobody said that what we really have to have in order to get energy production moving in this country is another Federal agency.

That is an idea that surfaced from an entirely different forum. It did not come forward from the private sector.

Now, Mr. President, I would like to turn to discussing briefly the coalition which has arisen to oppose the creation of the Energy Security Corporation.

An hour or so ago the Senator from New Mexico pointed out that a very unusual coalition of interests has arisen. I think he pointed out the old cliché that politicians make strange bedfellows. We all know this is true, but perhaps it has never been more true than when you think of the coalition which has come forth to say that the Energy Security Corporation is a bad, indeed a terrible, idea.

Included in this coalition of different interest groups are many organizations which, as the Senator from New Mexico has pointed out, have never worked together before. There are Senators from just about every portion of the ideological spectrum; there are business groups; there are environmental groups; there is a group which is interested primarily in the long-run economic development of the country. It is really an extraordinary convergence of interests, of people who have little in common in the day-to-day run of issues coming before the Senate and who even have different ideas about the size and shape of an energy program for the future of this country.

Last week, on Wednesday, I joined with a number of Senators and with seven or eight outside interest groups to hold a news conference in which each of us expressed our different points of view. We do not all agree upon what kind of energy program we ought to have. Some of us think it ought to be primarily private sector; some of us think it ought to be mostly tax incentives; some of us think that the size and shape of the program should be larger than some others we are talking about. But the interesting common denominator of the groups who came together and spoke last week is that they all feel that the wrong way to get started is with an Energy Security Corporation of the kind which is suggested by this legislation.

My friend from New Mexico has suggested that, really, this is a marriage of convenience, that these groups coming together is really

just a case of different groups protecting their own political turf. I say to the Senator from New Mexico, as one of those who not only participated in the news conference but suggested that it be held, that I do not have any political turf to protect on this issue. I do not care a bit about which committee has jurisdiction over energy legislation. I do not have any amendment, necessarily, that I am burning to have identified with my name. And I think that is true to a very large extent of those who are a part of this coalition.

I think we should, Mr. President, at this point, think seriously about why it is that this unique, nearly unprecedented alliance of Senators and interest groups has come together. When we vote on this issue, I suppose there will be some who will say that a bill which has incurred the wrath of the National Wildlife Federation, the major oil companies, the Sierra Club, the U.S. Chamber of Commerce, the Conservation Foundation, the Independent Petroleum Association, the National Federation of Independent Businesses, and various Western Governors cannot be a good bill.

I imagine there will be some who will say that a bill that is opposed by all of these people cannot be all bad. I should like to suggest, however, that when that spectrum of interest groups comes together to say that a bill is bad, it might be a time when the proponents and the Senators might think seriously about this bill and may come to the conclusion I have, that it is a remarkably bad piece of legislation.

The Energy Security Corporation is a classic illustration of what can go wrong when a major policy decision is crafted to meet the political needs rather than the economic needs of the country. I am sure that Senators are all well aware that the news reports indicate that this idea, the Energy Security Corporation, originated not with the Nation's energy experts in the private sector, nor even with the energy experts within the national administration, nor with the President's economic experts of the Council of Economic Advisers. Rather, according to published accounts, it popped up at a brainstorming session between a White House aide and a Washington lawyer over a long lunch at a posh French restaurant.

Politically, the idea was dynamite, or so it seemed at the time. The reasoning was something like this: We have an energy crisis. We need to do something that is forceful and vigorous and dynamic and, after all, what could be more forceful and vigorous than some kind of a crash program of synthetic fuel development?

Interestingly, however, the idea peaked at the very instant that it was born and it seems to have been slipping ever since. As the details of the President's program got out and the synfuels experts, who should have been consulted in the first place but were not, got a chance to examine the program, attitudes about the Energy Security Corporation began to change. The Banking Committee and the special task force of the Budget Committee held extensive hearings on the Energy Security Corporation. The witnesses who testified—from Government, from private industry, from the academic community, and elsewhere, were remarkably unanimous in their assessment of it. They said, in that circumspect style of witnesses testifying before congressional committees, that the Energy Security Corporation is a bad idea.

To begin with, there is the economic objection. The Energy Security Corporation will spend a potential \$88 billion to produce 2.5 million

barrels per day of syncrude by 1990 and, even under the most optimistic assumptions, scarcely a drop before then. I invite my colleagues to think seriously about the per-barrel cost of that first 2.5 million barrels. Can we liberate America from the high price of OPEC oil by forcing the Nation to pay twice as much for Government generated syncrude that will not be available for at least a decade?

Then there is what might be characterized as the Pollyanna syndrome. We are throwing around a lot of figures. The figures which the President picked for his projected costs and output of synthetic fuel production are really not based on anything at all. They are actually just wild guesses, so far as I am able to determine. I say that after questioning and closely discussing this with representatives of the administration.

Many experts think the Energy Security Corporation, if it goes forward as now proposed, will cost twice the \$88 billion the President projects and that, if we go forward in this way, we shall be lucky to obtain half the estimated 2.5 million barrels per day called for in this bill. The truth of the matter is that nobody knows exactly how much synthetic fuel is going to cost and the more we know about it, the higher the estimates seem to rise. For a detailed discussion of this phenomenon of price increase tied to detailed engineering knowledge, I invite my colleagues to look at the report of the Pace Engineering Consultants, which is contained in the special task force report to the Senate Budget Committee.

I am also concerned about the fact that in effect, the Energy Security Corporation becomes an all-the-eggs-in-one-basket kind of operation. Under the plan endorsed by the President and brought to us by the Energy Committee, the Energy Security Corporation will select a few of the various technologies available and then throw the \$88 billion in behind them. This could lead to expensive white elephants that do not work, or we could find ourselves, a decade from now, having expended \$20, \$30, \$40, \$50, up to \$88 billion, with no more synthetic fuel than we have today.

You may say that is a farfetched concern, that, surely, the Government would not make a mistake like that. I suggest that if we put synthetic fuel production under the same kind of basis, say, as the Postal Service, that is not an unrealistic fear. Or if we look at the way the Government is operating the Nation's railroads, it does not stretch my imagination to suggest that we might spend billions and billions and have little to show for it.

I also want to mention the environmental objections. Making oil from oil shale, as an example, requires enormous quantities of water which, in the arid West, is as precious as oil. The same applies to other forms of synthetic fuel production. In many cases, we are talking about the utilization of vast amounts of water.

The environmental effects of synfuel development need to be carefully monitored in order to prevent irreparable damage. The Energy Security Corporation might or might not exercise that kind of care. There is a real danger, when we create an atmosphere of a crash program, that they might run roughshod over that kind of environmental concern. That is one of the reasons why I favor development of synthetic fuels more on a step-by-step, prove-it-as-it-goes-along basis, rather than on a crash basis.

Each of the experts who testified before the Energy Committee, the Banking Committee, and the Budget task force in the last several months was, in effect, asked, "What will it take to get synthetic fuel production moving?" As I pointed out earlier, almost none—I know of only one exception—has suggested the creation of a huge new Government bureaucracy such as the Energy Security Corporation. Instead, they have made recommendations to cut redtape and provide incentives for the private sector. The Senate has already acted on legislation which will have the effect.

Others said decontrolling the price of oil and natural gas will stimulate production not only from these conventional sources, but also synfuels production.

They have called for tax credits, accelerated depreciation, and a streamlined process for issuing permits.

We talk about this coalition which has arisen. It does not have a name. It is not called a coalition or an alliance. That is just a handle. That is just a name to identify this group of Senators and interest groups who come forward without agreeing on the final details of the plan we would like to see enacted, but with the full appreciation of the difficulties of the Energy Security Corporation and who have reached the same conclusion that it is a very poor idea.

Interestingly, this coalition is not a static thing. In fact, I had printed in the Record last week, and I direct the attention of my colleagues to it, a list of those who participated in the press conference last week. I will not add more to that other than to call the attention of the Senate to the remarks in the Record at page S15588 on October 31. I submitted all of the statements of the Senators and interest groups.

(During the preceding remarks, Mr. Bradley assumed the chair.)

Mr. ARMSTRONG. Mr. President, at this time I would like to point out that the bandwagon, the antienergy security corporation bandwagon, continues to pick up momentum and speed. I would like to have printed in the Record statements of three organizations which in the last 2 or 3 days have taken a long, hard look at this corporation and have decided it is not a good idea.

First, I ask unanimous consent to have printed in the Record a telegram from the president of the National Coal Association.

There being no objection, the telegram was ordered to be printed in the Record, as follows:

...
TELEGRAM TO MEMBERS OF THE BOARD, PRODUCERS NOT ON BOARD, RESOURCE
DEVELOPERS AND GOVERNMENT RELATIONS COMMITTEE

Contrary to yesterday's mailgram there is little chance that the Energy Committee's synthetic fuels corporation bill (S. 932) will be amended to delete authority for government-owned synthetic fuels facilities. Energy Committee leadership has decided to oppose the deletion. Senator Church will not offer amendment.

First vote on synthetic fuels, probably Monday or Tuesday, will be on substitution of Banking Committee version of S. 932 for Energy Committee bill. Consistent with NCA strong opposition to any and all bills permitting government ownership of commercial-scale synthetic fuels facilities, we are now advising all Senators of our opposition to Energy Committee bill and support of Banking Committee bill. We believe Banking Committee bill, which does not permit government-owned facilities, is susceptible to amendments to provide many of the authorities which NCA considers necessary to develop a private, competitive synthetic fuels industry utilizing coal.

Urge you to immediately contact Senators in support of Banking Committee bill.

CARL E. BAEGE.

Mr. ARMSTRONG. Mr. President, I point out to my colleagues in the Senate that up until the middle or end of last week, that association was, to my knowledge, supporting the concept of the Energy Security Corporation as it is embodied in the Energy Committee's bill.

This is what the telegram to members of their board and others interested in the Coal Association says:

Contrary to yesterday's mailgram there is little chance that the Energy Committee's synthetic fuels corporation bill (S. 932) will be amended to delete authority for Government-owned synthetic fuels facilities. Energy Committee leadership has decided to oppose the deletion.

They go on to discuss some of the tactical reasons for that. But it sums up as follows:

We are now advising all Senators of our opposition to Energy Committee bill and support of Banking Committee bill. We believe Banking Committee bill, which does not permit Government-owned facilities, is susceptible to amendments to provide many of the authorities which NCA considers necessary to develop a private, competitive synthetic fuels industry utilizing coal.

Mr. DOMENICI. Could I ask my friend, on the Coal Association telegram, when that decision was made?

Mr. ARMSTRONG. This telegram is dated November 2, 1979, and I believe that was Friday of last week.

Mr. DOMENICI. I thank the Senator.

Mr. ARMSTRONG. Prior to that, I understand it was supporting the concept of the Energy Security Corporation.

Mr. President, I would like to share with Members of the Senate the thoughts of the American Mining Congress in a letter dated November 3. Without reading the entire text at this time, I would like to read one sentence which really sums up the issue in the opinion of the American Mining Congress.

After pointing out the objectives of the bill and commenting that they support this objective of more synfuel, they comment as follows:

However, the Banking Committee version impresses us as a vastly more promising vehicle for attaining the objectives.

Mr. President, I ask unanimous consent that letter be printed in the Record.

There being no objection, the letter was ordered to be printed in the Record, as follows:

NOVEMBER 3, 1979.

U.S. SENATE,
Washington, D.C.

DEAR SENATOR: The Senate will take up on Monday, November 5, the amendment reported by the Energy and Natural Resources Committee to S. 932, Title I of which authorizes a Synthetic Fuels Corporation. Under the consent agreement, the first order of business will be Title I of the substitute reported by the Banking Committee.

The American Mining Congress is impelled to support the Banking Committee substitute, providing it is amended. The amendments should include authorization to use a \$20 billion trust fund approved by the Senate in a 59-38 vote last month on an amendment by Majority Leader Robert Byrd. The Mining Congress is of the view that this sets an appropriate level of funding for a synthetic fuels program at this time.

We further believe that government funding should be restricted to assisting initial commercial-scale plants that demonstrate synfuels technology. This could include loans, loan guarantees and purchase contracts. It is our view that a new Energy Security Corporation is not required to accomplish these goals.

Chairman Henry M. Jackson and his colleagues on the Senate Energy and Natural Resources Committee are certainly to be commended for their diligent work to establish a vigorous program of synthetic fuels development in this nation. The American Mining Congress supports this objective.

However, the Banking Committee version impresses us as a vastly more promising vehicle for attaining the objectives.

One of the main reasons for our opposition to the Energy Committee version is that it would create a Synthetic Fuels Corporation and authorize it to establish up to three government-owned synthetic fuels facilities, if the funding incentives provided in the bill do not result in the Corporation's desired level and mix of private endeavors.

As we explained in a letter of October 5 to Chairman Jackson, the American Mining Congress believes that government-owned facilities would be a hindrance to the sound development of a synthetic fuels industry. Once the authority is granted, there will inevitably be pressures for creating these government-owned facilities which, by competing with private companies, will undercut the viability of the latter.

The result, like most self-fulfilling prophecies, will be greeted as evidence of the need to expand the governmental role even further.

As a consequence, there may well be a general shift from primary reliance on the private sector—as the legislation purports to promote—to a greater dependence on government-owned facilities. The government's record in the efficient and economical operation of essentially commercial ventures does not encourage us to regard this development with a hopeful air.

It is unfortunate that the different roles of business and government are not identified clearly in the debate surrounding this issue. Business and industry operate under a system designed to create maximum efficiency for the consumer—the market system of competitive enterprise. Unfortunately, government has many conflicting responsibilities. As a result, efficiency is eroded by the political pressures for sociological and political demands which may be alien to the stern disciplines of competitive efficiency.

Further, mismanagement by existing federal agencies has contributed largely to the energy crisis, and to argue that creation of one more agency is part of the solution, seems on a par with tossing a drowning man an anchor. We can only envision another cadre of officials who will seek the utmost limits of their authority and maximum interference in the marketplace. While it is theoretically possible to have a federal agency that does not try to extend its domain, in reality such an agency has been seen with about the same frequency as a unicorn.

In point of fact, no synthetic fuels program is likely to work unless the oppressive regulatory regime already in being is reformed. This holds true for development of other domestic energy resources as well.

We strongly believe that regulatory reform coupled with appropriate financial incentives will allow sound development by private industry of the synthetic fuels potential of this nation and that industry will respond to the challenge.

Your attention is invited to the precedent of the Korean War, when 5-year tax amortization certificates and governmental commitments to purchase aluminum, copper and nickel at specified or prevailing market prices enabled the private sector to overcome serious shortages in these strategic materials.

Similar incentives would now stimulate a marked increase in private development of a synthetic fuels industry. But the government cannot do this with the one hand, and with the other hold ready the means of sabotaging its own objectives.

The growing dependence of the United States on foreign sources of oil is now generally recognized as perilous in the extreme. The volatility of these foreign sources poses stark geopolitical risks for our national security, while our bondage to these sources tends to fetter American foreign policy. At the same time, the rising cost of oil imports due to higher volume and prices stimulates inflation at home and undermines the economic order of the globe.

There is no alternative on the immediate horizon other than making greater and better use of energy resources domestically available, including oil, gas, coal and nuclear power. In the short term, at least for the next decade or two, expanded use of the nation's abundant coal reserves is essential.

For all these reasons, we are absolutely persuaded that the substitute measure by the Banking Committee—appropriately amended—offers the best hope of helping to overcome this nation's perilous dependency on foreign energy resources. It is our earnest hope that you vote will reflect the concurrence with this position.

Sincerely,

J. ALLEN OVERTON, Jr., *President*.

Mr. ARMSTRONG. Mr. President, I bring to the attention of the Senate a new survey regarding the Energy Security Corporation. It was taken by the National Federation of Independent Business (NFIB), the Nation's largest small business organization with more than 585,000 members nationwide.

The small business survey on the merits of the Energy Security Corporation is the second taken by NFIB. In the first poll, 58 percent of members responding opposed the creation of the Energy Security Corporation and 38 percent supported it.

Because of complaints from proponents of the Energy Security Corporation about the wording of the question, NFIB again surveyed its small business members. The result is a more resounding veto of the Energy Security Corporation. A total of 80 percent of those responding rejected the idea with only 16 percent supporting it.

Obviously, the idea of an \$88 billion Energy Security Corporation continues to lose grassroots support as more and more people become aware of the proposed legislation. I hope that my colleagues will show the foresight shown by their constituents and vote against this terrible idea.

Mr. President, I ask unanimous consent to have the survey printed in the Record.

There being no objection, the survey was ordered to be printed in the Record, as follows:

Below are the results of the early cut (10/15/79—10/31/79) on Mandate #422. Total early returns of 40,704:

	Pro	Con	Undecided
1 -----	46	49	5
2 -----	16	80	4
3 -----	41	48	11
4 -----	54	33	13
5 -----	78	20	2

Mr. ARMSTRONG. Mr. President, I will shortly yield the floor. My purpose in rising is simply to express concern over the direction of this legislation as outlined in the opening remarks of the backers of the bill.

As I said at the outset, I am going to reserve my own detailed remarks and comparison of the Energy Security Corporation provisions of title I of the Energy Committee's bill and the alternatives suggested by the Banking Committee for later.

I think from a parliamentary standpoint, it would be well for me to have those thoughts collected and placed in the Record as part of a comprehensive statement when the Energy Committee's amendment is actually before us.

But at the outset, I wanted to at least provide this frame of reference for the debate and to express my concern about the Energy Security Corporation.

Before I yield the floor, I again compliment my friend from New Mexico for his study and concern. While I disagree with him about the creation of an Energy Security Corporation, I assure him and all my colleagues that I share completely the sense of urgency about closing the energy gap. I share completely his enthusiasm for the development of a synfuels industry. I regret that I do not see eye to eye with him on the best format in which to do so.

Mr. Domenici addressed the Chair.

The PRESIDING OFFICER. The Senator from New Mexico.

Mr. DOMENICI. Mr. President, I know I need not tell my good friend from Colorado of the great respect I have for his philosophical approach to economics in this country and where we ought to be, because I think he knows that.

I want to make two or three points and perhaps the Senator from Colorado might want to address them. They are, in a sense, prompted by his.

I hope everyone knows that while the Senator from Colorado speaks of water and its scarcity in certain parts of America, and the fact that synthetic fuels need water, they will also know that this bill before us, title I, for synthetic fuels development—as well as the Senate's version of the fast track legislation—both provide that the States will permit the water needed for these kinds of plants.

In a nutshell, if he is right, that there is not enough water, the plant will not be built where there is not enough water because the State within which it will be built or proposed to be built will control the appropriation of water and the permitting of that water for that use.

I do not know of greater protection we can offer in terms of competing issues.

I do not know how we can more decentralize the decision on water than that, to say the State will permit it or it will not be permitted, the State will appropriate, or not, for a synthetic fuel plant.

Second, I want to talk about the risk involved in moving with that innovative approach to provide financial flexibility through a board of directors, as provided in the Energy Committee's bill. I would be totally without understanding of what is happening in America and the enterprise system if I did not agree there is some risk. Indeed, there is.

However, I am going to predict right now, on the floor of the Senate, that within the next 3 to 5 years, the risks we are going to take in this country in order to try to get out from under the dilemma of dependence will be enormous compared with the risk involved in creating this entity. That is how I see it. My intuition and every fact I can read tells me that we are in big, big energy trouble. If the biggest risk we are going to take is to create a board of directors with financial flexibility to assist the private sector to expedite synthetic fuel development in a diversified manner—if that is the biggest risk we are going to take in the next 3 to 5 years, we will be blessed and fortunate beyond anything the facts indicate and anything we have done to deserve it.

The Senator is right in saying that the National Coal Association belatedly indicates that it does not support this approach, the Energy Committee's approach. However, they unequivocally do not support the \$3 billion in the Banking Committee's bill. They remain firm that

we need about \$20 billion, precisely the number that is in our bill. That is number one.

For those who think this is too big an approach and want to take a little solace in the fact that the coal association does not support it, I say that they are merely for doing it another way, but with equally as much Federal Government financial assistance as provided in ours. In fact, you might read it that if you go with a number as big as that in the Banking Committee bill, and since there is a 3-to-1 allowable, they may even be talking about \$60 billion in finance mechanisms that they would support.

Mr. ARMSTRONG. Mr. President, will the Senator yield?

Mr. DOMENICI. Let me make the second point, and then the Senator can address both points.

The second point is that everyone should know that when we are talking about the coal association, we are not talking only about coal companies; we are talking about energy companies, and they all vote in this association. Exxon votes very heavily in the coal association, and they use this weighted kind of voting, depending on how much money is put in for membership.

I want to make this last point as to the Energy Committee bill and the GOCO's. The bill says, in a nutshell, that we will not have Government built, private sector operated plants unless it is a last resort, to develop a technology that is deemed necessary for the diversity required for this great country, and it cannot be built any other way. If anyone can provide language that will make that more certain, more firm, we are for that. But does anyone really believe that the Exxon's of this world are against this bill because of one, two, or three GOCO's that, perhaps at best, are a last resort, if ever? I do not believe it; I do not believe it all. I believe they would rather have the assistance of the Federal Government on their terms, rather than the terms which probably will evolve here, which is competition, spread out the resource so that more than the big three or four can get into it. That is at the basis of their objection.

I will speak about water in a moment, but at this time I yield to the distinguished Senator from Colorado.

Mr. ARMSTRONG. I want to make an observation regarding a point the Senator from New Mexico has made.

I think he has identified correctly a place where the issue can be divided as to the format of the Government's involvement—that is, energy corporation or some other way, and the dollar amount.

I believe the Senator is correct in pointing out that there are those who are backing the Banking Committee's bill and who harbor, nonetheless, the idea of further amendments. It is my understanding that when the Banking Committee's title is laid down and adopted, it then will be available for further amendment. I think that is exactly right; and in my judgment, that makes the issue a very clear one.

The issue is not the dollar amount; the issue is not how many plants per year. The issue is this: Do we want a Government energy corporation or not? When the time comes, I will be prepared to argue vigorously over the dollars.

The decision is whether or not we have a Government Energy Corporation. Senators who are for that will vote against the Banking Com-

mittee's substitute. Senators who are against the Government becoming more deeply involved will vote the other way. The dollars are an issue to be debated separately.

I add that Exxon may vote in the National Coal Association, but they do not vote in NFIB, the Sierra Club, or the National Wildlife Association.

Mr. DOMENICI. I understand.

It is customary that things I support would have the support of independent businessmen. I love them. They endorsed me in my campaign. But I submit to the Senator that if we had a cross-section of 50 of them listening to this debate, we would not get 60 to 70 percent on the side of the Banking Committee bill. They are purists philosophically, as is the Senator from Colorado. They are not approaching this business as usual as we are approaching it but, rather, are assuming that we will get synthetic fuel without the approach we have. If we asked them we would see where the votes were and where the percentages were. That is going to be the issue.

Mr. President, I will make two other points.

The Senator from Colorado says that no one in finance and no one in the energy industry favors the security corporation. I say this to my colleagues: The strange thing is that they all favor the goals and they all say we should get there. They just feel that we are going to get there another way. That is the issue. Are we going to get where they all say we should be unless we do it through an extraordinary vehicle that adequately protects everyone?

Even with that, there are economic purists who believe, as does the Senator from Colorado, that we should go back 10 or 15 years and wipe the slate clean of all regulatory delays, all involvement of the Government, and we just will not need this venture. There are some who feel that way and still say that we have to go this way. We have to go with the Energy Committee.

David Goodman, of Morgan, Stanley & Co., based on his background, is one of the most experienced financial people in the country, and he is with one of the most experienced financial houses in the energy field. He says this about the corporate entity we are creating:

Philosophically, I would rather not see a new entity created for *syn-fuel*. However, to make the program work, the decisionmaking will have to be crisp, hard-nosed, and attuned to the needs of business. A regulator's mentality would be anathema to the purpose of the program. As a practical matter, I question whether there are sufficient personnel with the proper background to staff this undertaking in government at the present, or whether they can be attracted to the Civil Service. On balance, I conclude that a separate, government-owned corporation, with the legislation, is probably the best way to go.

I think that summarizes it for those who feel as I do about the private sector helping us solve our problems, but that sometime in history we have to help them help us, which is what I see a corporate entity doing here, if we can get established and functioning.

With reference to the amount of money involved and possible inflation, three things.

I am indeed pleased that the Senator from Colorado, in admitting that the issue is form not substance, thinks we need far more money than the Banking Committee provides, in fact, something closer to our \$20 million. I am pleased that he acknowledges that. That

should eliminate the issue of whether it is inflationary or not. That should eliminate the issue of whether we can do it with personnel or not, because I have not heard anyone say that a plant built with loan guarantees under the Banking Committee bill or a plant built under the jurisdiction of our flexible finance plan for the same amount of dollars will require any different personnel to build or has any different aspects as far as inflation.

So I think it all boils down to whether we will get synthetic fuels without the extraordinary umbrella that we are talking about or will we get it under the banking bill? So I am pleased that the Senator addressed that issue.

Second, for those who think that loan guarantees, or purchase agreements in the amount of \$20 billion, present an extraordinary endeavor by America, let me give them two facts.

On the floor of the Senate last year it took us a full 15 seconds to approve \$15 billion worth of new authority for the Tennessee Valley, \$15 billion new authority to do what they have to do over the next 10 to 15 years. No one said we were going to break the bank; no one said we were throwing billions at the problems. We were providing them the flexibility to invest and recoup back money to stay in the business of providing energy to the Tennessee Valley users—\$15 billion; 15 seconds. No one argued the kind of economic chaos and ruin that has been argued here about the Senate bill.

Third, the best investors and financial people say that in the next 20 years the private sector of the United States will invest a full \$1.1 trillion in all kinds of energy and energy-related alternatives. It seems to us that \$20 billion to bring on board diverse commercial technologies in the fields of shale development, liquids, and natural gas from coal, and crude oil from tar sands is a meager commitment to preventing a national disaster that is impending.

I yield the floor.

Mr. RANDOLPH. Mr. President, I ask unanimous consent that Ric Fenton and Tom Altmeyer of my staff be accorded the privilege of the floor during debate and any votes on the pending legislation and amendments thereto.

The PRESIDING OFFICER. Without objection, it is so ordered.

Mr. RANDOLPH. Mr. President, I do not speak just to be another participant in Senate debate. I counsel with my colleagues in reference to the pending legislation because I believe the subject matter of extremely vital importance, not just Senators, Members of Congress, or the administration now holding public office, but to Americans today and tomorrow and in the years ahead because it concerns the very lifeblood of this Nation as we continue to not only sustain our form of Government but to expand properly the society of which we are a part.

When we talk of the extension of the Defense Production Act of 1950, as amended (Senate 932), we are thinking of action which can be taken which will lead to the reestablishment of a Federal commitment to develop a domestic fuel industry based upon synthetics.

In making this statement, I have both enthusiasm and a certain amount of disappointment. Disappointment because of still being

about to use the phrase as I had in 1943 in connection with H.R. 3209. That measure, cosponsored by Senator O'Mahoney, who was in the Senate, and the Senator now speaking, who was then in the House of Representatives, authorized the Secretary of Interior through the U.S. Bureau of Mines to construct, maintain, and operate one or more plants to produce synthetic liquid fuels from coal, and other substances, including oil shale, and waste from industry and agricultural products.

At that time I stated and I repeat the words, "we certainly do not want to let ourselves be panicked into emptying our national petroleum reserves of every drop while waiting for satisfactory coal liquefaction methods to be developed."

Very frankly, I respect my colleagues and their judgment, although at times I differ with their opinions, as I had to differ with Senator Tsongas recently during debate on the Interior appropriations bill when he said that a synthetic fuels industry, if passed now, could not be in active production, supplying the Nation's needs for 10 years. But, I say again as I did when we both occupied the floor at that time, that if it is to be 10 years from now and we wait to do it next year it will be 10 years from then; if we wait to do it 5 years from now, it will be 10 years before such a program is brought into being.

The time is now. The time is not later. It is imperative that the Senate, Congress, and the administration act now. We have to make an all-out frontal effort to bring into being a viable program for developing a synthetic fuels program before the week is out.

So, I have enthusiasm, as I have indicated, because today we have a legislative vehicle before us through which we can create a synthetic fuels industry, in a reasonable framework, within the United States.

We thus have the potential—to regain the initiative which was provided, on April 5, 1944 when President Franklin Roosevelt signed into law the mandate to develop new technologies to produce ethanol, methanol, and other liquid fuels from coal, oil shale, and agricultural wastes. Approximately \$82 million were spent on this program prior to its termination in 1955. Synthetic fuels could not compete economically with cheap petroleum and natural gas supplies. When that program was terminated we lost data that could now be used as a statistical base from which to develop a sound synthetic fuels program. Such a base would have assured that the massive amount of funds we are now ready to commit, in the absence of unlimited oil and gas supplies, be applied to specific technologies guaranteed to produce the fuels needed now.

Yes, we have the opportunity, and we have even a greater responsibility, because an opportunity ceases to exist if it is a real opportunity and we do not embrace it, with the following through in responsibility.

We cannot dwell, however, on what could have been. Instead we must develop a record here in the Senate which will provide fast and effective policies to produce synfuels in the time frame required for our national security.

The version of the bill reported by the Senate Banking Committee after 3 days of hearings indicates that synfuels is an uncertain and ex-

pensive technology, which will not yield noticeable results in the short term, or should we vigorously pursue conservation and solar technologies, which can yield much quicker and much more certain results.

The Energy Committee's National Security Act reported, after 23 days of related hearings, assumes that conservation and renewable energy are part of the solution but we should move as quickly as possible to use our domestic reserves of coal and oil shale. It is my intention to support title I of the National Security Act.

Mr. JOHNSTON. Mr. President, will the Senator yield?

Mr. RANDOLPH. Yes, I yield.

Mr. JOHNSTON. I do not think that most Senators know how long the Senator from West Virginia (Mr. Randolph) has been a leader in the field of synthetic fuels. I do not know whether most Members know that the Senator from West Virginia in 1944 was the coauthor of the O'Mahoney-Randolph Synthetic Fuels Act of 1944, and that it operated successfully for a dozen years and pioneered the field here.

I was very interested this morning when we met with the President—and the President backed this bill, and I do not know whether the Senator from West Virginia has been informed, but the President remarked, he said:

You know, I don't think I have been for a single energy bill that the Senator from West Virginia (Mr. Randolph) has not been a cosponsor of in earlier Congresses.

And he said:

I really mean that seriously, because the Senator from West Virginia (Mr. Randolph) seems to have thought of most everything to it.

I thought the Senator from West Virginia would be interested to know that the President is aware that his leadership extends far prior to even the 1973 embargo, and if we had followed the Senator from West Virginia's advice and leadership in the whole area of energy, but particularly synthetic fuels, we would not be in the difficult shape we are in right now.

Mr. RANDOLPH. Mr. President, I am very grateful for the words that have been spoken by the knowledgeable and able Senator from Louisiana. He is very thoughtful in bringing this report from the White House. I do not say in any spirit of jest, but I hope those words of the President were taken down there and were not just off the cuff. I would like to keep them in mind, and sincerely thank President Carter for the recognition of my legislative efforts in the energy area.

Mr. JOHNSTON. Mr. President, may I say to the Senator those words should have been said on television. Unfortunately, they were said at a meeting with a bipartisan group of the Senate Energy Committee, at which the President announced his strong support of the Senate Energy Committee's bill. But he remarked at that time that:

Since 1976, when I was elected, it seems like I have been spending my whole term backing energy bills, and everything I have backed, the Senator from West Virginia backed first.

He had, of course, particular reference to the synfuels bill, but other bills as well.

Mr. HATFIELD. Mr. President, will the Senator yield?

Mr. RANDOLPH. Yes, I yield to my able colleague from Oregon.

Mr. HATFIELD. Lest the Record indicate this was purely a colloquy between two members of the Democratic Party, I would like to affirm the report of the Senator from Louisiana and to underscore the words that he spoke to make it a bipartisan report to the Senator from West Virginia.

In fact, I do not believe the President restricted it to any legislation relating to synfuels. I think and I believe the Senator from Louisiana implied, if not explicitly so, that the President was very broadsweeping in his remarks saying:

I don't believe there is an energy bill that has been introduced since I have been President that the Senator from West Virginia (Mr. Randolph) had not sponsored or cosponsored earlier on.

I thought it was a great tribute to the Senator from West Virginia and one in which those of us who serve on the Energy Committee are quite familiar with, that is, his record. So it does mean a great deal to the Senator from Louisiana, I know, as well as for myself today, as the managers of the bill, to have the support of the Senator from West Virginia (Mr. Randolph) for this bill, and I am sure it is not only a matter of historic record but a bit of nostalgia to remember that when the Senator sees some of these ideas that have been floating around so long which finally come to fruition, and let us be hopeful we have the votes on the floor today, or whenever we vote on it, to make this a reality and not one of those illusions which tends to disappear the moment we think we have a grasp on it.

So I want to thank the Senator from West Virginia for his support of this bill and to affirm the comments made by the Senator from Louisiana.

Mr. RANDOLPH. Mr. President, I shall not attempt to express the gratitude felt except to say it is very much appreciated. I always am grateful for the privilege of working with others who have the knowledge, the understanding, and vision in energy matters. I say to the managers of S. 932 today that we should approach this subject matter not so much as Democrats and Republicans, one across the aisle from the other, but as those interested in the needs of America before it is too late.

We might make some mistakes here today. But I say to Senators Johnston and Hatfield that if we do not act shortly, if we do not begin today, we may find ourselves in a condition in this country where we will not have the chance to make future mistakes.

Mr. JOHNSTON. Mr. President, will the Senator yield on that point?

Mr. RANDOLPH. Yes.

Mr. JOHNSTON. The Senator would be interested to know, along the same lines, that Sheik Yamani, who is the Oil Minister from Saudi Arabia, had a luncheon here last week with a number of Members of the Senate. At that luncheon, Sheik Yamani—whom some have referred to as the most powerful man in the world because, as someone put it, they say that Brezhnev may have the nuclear button which he can push, but nobody thinks that he will push that button, but Yamani has the oil valve which he can turn, has turned, and is likely to turn, so that makes him, according to some estimates, the most powerful man in the world.

In any event, Sheik Yamani told this group of Senators that, with luck, in 1980 we will not have any gasoline lines in the United States.

He said that is going to take a lot of luck, like no disturbance in the Middle East and strong conservation measures. He said that by 1981 we will begin to have serious spot shortages in the United States, attended by gasoline lines and the other kinds of difficulties we had this last summer.

Sheik Yamani said that by 1982, those shortages in the United States will be chronic, they will be deep, and they will be of long duration. From that point on, he said things will be increasingly difficult. So when the Senator from West Virginia says that we had better act now or we may lose that capacity to act, then I say that Sheik Yamani, the man who should know and who does have his hand on that world oil valve, strongly reinforces what the Senator from West Virginia has said.

If we had taken the advice of the Senator from West Virginia in 1944 and followed through on that program, we would now have a synfuels program in place. If, in 1975, we had passed the bill which the Senator from West Virginia supported, along with a number of other Senators, which passed the Senate and was killed in the House, we would probably have in place now a producing commercial venture of appropriate size in synfuels, or we would be on the very eve of having that producing commercial venture. We lost our opportunity at that time. We dare not lose that opportunity another time, because, if another 4 years rolls by, as it did since the last time the Senate passed that legislation, another 4 years of inaction, the situation will be that much more critical, the problems much deeper, and the economic consequences much more chronic and much more devastating in terms of the life styles of Americans.

Mr. RANDOLPH. Mr. President, again I thank the managers of the bill and concur in what Senator Johnston has just said. It is difficult for us to overstate the need for this legislation. I am not going to say the man you speak of is the most powerful figure in the world, but the power he holds within his hand makes him a force in determining whether the United States of America will have the supplies necessary not only to sustain but even to strengthen our economy.

We are at the end of a 10-year period highlighted by two significant oil supply interruptions, in 1973-74 and 1979, and a sixfold to sevenfold increase in world oil prices. Oil now accounts for 19 of the 37-million barrels, in equivalent terms, we consume in this country each day. Of the 19 million barrels per day consumed, 9 million barrels, or 50 percent, is imported. To make matters worse, we have lost control over oil prices and are forced to pay the price OPEC asks. This warrants the strongest kind of effort to develop the capacity to make use of our vast coal and oil-shale reserves.

Mr. HATFIELD. According to our information, if the Senator will yield, he is stating the situation correctly.

I might also add two other factors. The Senator from Washington (Mr. Jackson), chairman of the Senate Energy Committee, earlier this morning indicated that the spot market price had reached \$48 a barrel. And we know that the situation in Iran today is very, very precarious. I understand that we are obtaining, at this point, around 500,000 or so barrels per day, which could conceivably be cut off as a result of the crisis that exists in Tehran.

So there are many factors that give support to the thesis now being espoused by the Senator from West Virginia, both from the standpoint of Nigeria, specifically, and the world market, but also in other areas of supply which we have relied upon and of which many such areas are in a very tenuous situation from a political standpoint which could lead to a severance of that supply line at any moment under such precarious political circumstances.

Mr. RANDOLPH. I continue to express appreciation for the expertise of those who are managing the bill from the Energy Committee. I believe the existing phase 2—Congress is giving the program is economic. The huge front-end costs combined with an uncertain world oil market have prevented private developers from going ahead with commercial projects.

By providing authorizations at the beginning of each phase—\$30 billion at the start of phase 1 and \$68 billion for phase 2—Congress is giving the program momentum. In addition, it sends the signal to the Nation that we want a synfuels program. While title I of the National Security Act gives the program financial momentum, it also allows for a second congressional check at the end of phase 1, when either House would be able to block phase 2 and the authorization of the additional \$68 billion by passing a resolution of disapproval. In addition, Congress would have to appropriate funds for phase 2.

Also, by providing for a very limited number of Government-owned, contractor-operated projects the Energy Security Corporation is provided with bargaining power. If a company demands an unreasonable amount of financial assistance, the Corporation can develop the project itself.

In developing an energy security corporation we must insure that its charter includes a mandate to subsidize first generation synthetic processes that are small, but commercially viable. We must define clearly the responsibilities of a synthetic fuels authority and make definite distinctions between its functions and the Department of Energy. We must insure that there is an orderly transition of programs without allowing existing energy development efforts to come to a halt. We must insure that small consortiums of energy companies have access to the Energy Security Corporation.

Once we have an entity established to encourage the development of synthetic fuels, we must conduct regular congressional oversight of its activities. This is an area we often neglect once a law has been placed on the books. Also, an independent Government authority must use the professional expertise we have available within Government agencies, as well as that in the private sector.

I believe the National Security Act accomplishes these objectives. But while we strive for a synthetic fuels capacity that will produce 1.5 million barrels of oil equivalent a day by 1990, we must vigorously pursue coal conversion programs. Coal capable utility boilers now burning oil and gas should be reconverted to burn coal. Reconversion of these boilers will save 724,000 barrels of oil per day by 1985. Accelerated construction of new boilers fired by coal and other fuels replacing oil and gas could save 900,000 barrels of oil a day, again by 1985, and 1 million barrels per day by 1990.

In regard to coal conversion, it is highly important that Congress give attention to the administration and placement of existing and

proposed financial aid programs to assist utilities in converting from oil and gas by quickly considering coal replacement legislation and amending legislation to the Fuel Use Act.

It is of utmost importance to include environmental assessment and participation from the "ground up" with regard to commercializing synthetic fuels, so we can avoid many problems that otherwise would have to be negotiated by an energy mobilization board. Inclusion of environmental concerns in the design and demonstration of synfuels plants will alleviate the retrofitting problems that have become common obstacles for reconverting electric power generation facilities. Commercialization of synfuels plants may permit environmentally clean fuels to be produced, distributed and used in areas now experiencing difficulties in meeting clean air standards.

Emission control technology exists or can be developed to reduce potential pollutants to acceptable levels through better scrubbing techniques and atmospheric fluidized bed cleaning. If properly controlled, synfuel plants yield an environmentally acceptable product. They produce traditional pollutants in smaller amounts than do large coal-burning powerplants, oil refineries and the like.

The first congressional hearings to awaken the interest of Americans in securing oil and gasoline from sources other than petroleum were held by the Subcommittee on Coal of the House Committee on Mines and Mining in June and July of 1942. Before this subcommittee, of which I was chairman, appeared some of the Nation's foremost scientists to testify on the methods used in Europe, England, and Japan for making gasoline from coal or gases. A complete transcript of these hearings was published under the title, "Production of Gasoline from Coal and Other Products." Later in 1942, hearings specifically directed to consider methods to increase petroleum discoveries, and also on the production of gasoline and oil from coal or shale, were held before a subcommittee of the Senate Public Lands Committee. In 1944, Harold L. Ickes, the Petroleum Administrator for War, and former Secretary of the Interior, wrote to me saying:

We need synthetic liquid fuels now, but we have not got them. It took other nations years to develop their synthetics and even the great fuel industries of this country, which have urged this government to embark forthwith on the program set forth in your bill, do not feel such a new industry can be established quickly. It is our purpose to avoid any interference with the unknown future of this war, but the Army and the Navy and all familiar with synthetic fuels possibilities believe that we must start our program now.

I was not in the Congress when our synthetics development program was ended. In 1958, when I was elected to the Senate, I again began to work for a national fuels and energy policy, including synthetic fuels. I testified before the Senate Interior Committee in 1961 and said:

Every year that passes in which we become more and more dependent on foreign oil to buttress our national economy and security perhaps is one year nearer to disaster. We are gambling on our country's future.

The fresh look at synthetic fuels, which we begin today, must produce positive results for investment in our country's energy future. If our national energy policies are to be responsive to national needs, we must develop energy resources of every form—not competition between energy resources.

This attitude is documented in the report on synthetic fuels, issued by the Subcommittee of Synthetic Fuels of the Budget Committee on September 27, 1979. In that report four independent groups drawing conclusions on U.S. energy policy stated:

A two-stage Federal approach to developing synthetic fuels would have economic advantages over a single-stage approach.

Price guarantees are the most economically effective incentive, but a variety of financial mechanisms will be needed to overcome financial barriers to production of synthetic fuels, and

More conservation, conventional burning of more coal, and deregulation of oil prices will reduce oil imports in the short run at lower cost than producing synthetic fuels with processes known today.

The time for gasification and liquefaction from coal and oil shale is now, whether by direct Federal subsidies or price supports. The incentives must be tailored to the technology. The Senate Banking Committee's substitute to title I of the National Security Act for 12 projects and \$3 billion is too research oriented. It does not go far enough.

The technologies, of course, can be refined, can be continually developed for better results. But we need more than an expanded program of research at the Department of Energy.

The bill from the Banking Committee, with all respect to its chairman and the result of the vote, does not do the job. It just is short of the commitment that this Senate and this Congress must make.

(Mr. Moynihan assumed the chair.)

Mr. RANDOLPH. Because of our preoccupation with minimizing the short-term effects of inadequate domestic energy supplies we have failed, Mr. President, to solve our long-range problems.

We must correct this situation. It is a situation, highlighted by the fact that we are hostage to overseas oil interests as the Presiding Officer, Senator Moynihan, has stated in the past. In his terms, my terms, anyone's terms, we are hostage to overseas oil interests.

So, Mr. President, we must correct this tragic situation. It is necessary now to move forward affirmatively to vote down, the substitute offered by the Banking Committee. Timid steps toward a synthetic fuels policy will not suffice.

The PRESIDING OFFICER. The Senator from Utah.

Mr. HATCH. Mr. President, I have been listening to this debate, basically between the Energy Committee and the Banking Committee, for quite a while. I have been very interested in the nuances and the distinguishing characteristics between the two bills, that of Senator Proxmire, of course, being before us at this time, and the administration bill as drafted by the Committee on Energy and Natural Resources.

It seems to me that with regard to production authority, the Energy Committee version creates a new Energy Security Corporation outside of the Government. As I understand, five members are appointed by the President and confirmed by the Senate, plus there are three non-voting members from the Government, the Secretary of Energy, the Secretary of the Treasury, and the Chairman of the Energy Mobilization Board. The Banking Committee version authorizes the President to lodge synfuel support authority within the existing agencies of DOD, DOE, and DOI.

The House committee version is very similar to the Senate Banking Committee version, except that it has DOE, DOD, DOC, and TVA.

Of course, the Energy Committee bill seeks 1.5 million barrels of oil per day from various types of facilities and technologies by 1995, while the Banking Committee version is trying to demonstrate the commercial viability of synfuel technology and expand production of heavy oil and tar sands.

There is a similar goal on behalf of the House version, which is a desire to stimulate production of 500,000 barrels of oil per day from synthetic fuel by 1985 and 2 million barrels by 1990.

The major difference which appears to me between the Energy Committee version, the Banking Committee version, and the House version, is in the matter of cost. The Energy Committee version would authorize \$88 billion in two phases, \$20 billion for phase one with the Energy Security Corporation having 3 years to formulate strategy and policy for phase two, which would go into effect unless either House of Congress disapproves.

To repeat, as I understand it, the Energy Committee bill will authorize \$88 billion, \$20 billion up front for the phase one or the first 3 years, while the Energy Security Corporation formulates a strategy for phase two, but phase two, which will amount to \$66 billion more, goes into effect automatically unless either House of Congress, in effect, disapproves.

The Banking Committee version authorizes \$3 billion which is considerably less than the Energy Committee version in direct appropriations. Loan guarantee authority, as I understand it, is \$3 for each \$1 appropriated, for a maximum possible outlay authority of \$9 billion, versus the \$88 billion of the Energy Committee.

The House version authorizes \$3 billion in direct appropriations for purchase commitments, \$38 million in loan guarantees, \$48 million for direct loans, and has no limit on loans and guarantees if neither house vetoes. At least it is my understanding that total price is one significant difference between the three basic versions of the synfuels bill.

With regard to the Government ownership of production facilities the Energy committee version authorizes the Energy Security Corporation to use any form of incentive, including, in this order, price guarantees or purchase agreements, loan guarantees, direct loans, joint ventures and outright Government ownership. The Banking Committee version authorizes use of purchase commitments, price guarantees and, as a last resort, loan guarantees up to 75 percent of cost, but no advance payment is authorized and no project can receive more than \$500,000,000 in Federal moneys.

The House version allows for the primary authority in loans, loan guarantees, and purchase commitments, but the President is authorized under the House version to organize corporations to produce and acquire synfuels.

In addition, the Energy Committee version provides that, as a last resort, the Energy Security Corporation is authorized to build and operate up to three Government-operated and Government-owned organizations or Government-owned and company-operated organizations or more if neither house disapproves.

Where the Banking Committee version outlaws or prohibits Government ownership, the House version, I believe, gives even broader discretion to the President. Also, I might add, the Energy Committee

version would permit the Energy Security Corporation to acquire federally-aided projects in financial trouble under certain conditions without respect to the above limits.

What it looks like is that we not only have an \$88 billion bill in two phases—\$20 billion for the first 3 years and \$68 billion thereafter unless Congress disapproves, specifically disapproves, but they can use almost any form of incentive and can actually build own, and operate Government-owned and Government-controlled businesses up to three if neither House disapproves, and in addition, can purchase or acquire federally-aided projects in financial trouble under certain conditions.

With regard to the technological limits, the Energy Committee version provides that there are no limits on the number of projects or types of technology, while the House version limits the types of projects to 12 different technologies, 6 each from oil shale and coal. The House version allows for purchase contracts limited to 100,000 barrels per day per project.

As I understand the duration aspects, the Energy Committee version provides that the Energy Security Corporation loses authority to make new commitments in 1990 and goes out of existence in 1995. The Banking Committee version has an indefinite authorization, but provides that no project can receive assistance for longer than 7 years. The House version does not have provisions for the technological and project duration limitations on duration.

With regard to the categories of technology that are covered, all three are quite specific.

The notion of creating a Government corporation to push synthetic fuels technology reflects a potentially costly misconception in the eyes of many on the floor regarding how the American economy functions. I should like to make some points on this and, of course, continue to consider both of these versions of the synfuels bill and try to make the right decisions in the end.

With upfront expenditures of taxpayers' money for production capital, some would argue that such a subsidy of commercial synthetic-fuels production is, at best, unnecessary if synthetic fuels can be produced at competitive prices; and there is little point in doing so if they cannot be produced at competitive prices. To the extent that synthetic fuels are technologically feasible and economically competitive, private industry will be willing to invest in their production without Government subsidization. There is, after all, nothing inherent in the synthetic fuels programs that makes it different from other programs in which the private sector is willing to invest. It requires no new fundamental scientific or technological advantages, as exemplified by the existing South African program. And though large capital expenditures are required, they are less than required for many other projects presently undertaken by industry such as the Alaskan oil pipeline.

First, long leadtimes are required, but these are no longer than those required in designing and producing new types of airplanes. Where the Government has tried to subsidize analogous efforts, it has risked major errors. For example, Congress narrowly avoided subsidies for the supersonic transport. The complete failure of the British and French subsidized Concorde to find a market shows how foolish such subsidies would have been.

Second, the proposed synthetic fuels program could lock us into particular technologies which would be neither efficient nor economic. It is private industry and not the Government in the form of some synthetic fuels corporation which is the best position to determine which technologies are most economic. As American history has repeatedly shown, private enterprise is more flexible and more highly motivated than the Government bureaucracy. Those of us who have worked with the Government bureaucracy have come to a definite conclusion on that matter.

Third, a subsidized synthetic fuels program like that proposed by the Energy Committee may very well promote sweetheart deals in which the business firms participating would have the option of substantial profit without taking substantial risks. Specifically, companies would know that, under a broad range of circumstances, they would be reimbursed for "any reasonable costs" arising from actions that "could not have been reasonably foreseen."

Their own commitment would not need to be great in any sense of that term, because they could enter into joint-venture arrangements with this synthetic fuels corporation in which they would have the right to purchase the corporation's shares of ownership if things went well. If things went badly, the affected business could be bought out by the corporation under a broad range of criteria, with the option of leasing the project back. These advantages simply diminish the vigilance of the business concerns.

Fourth, Government-subsidized programs of this kind cannot, by their nature, produce the desired results, the true, marketplace test of the competitiveness of the technology. Private industry would go into the synthetic fuels business under a false set of profit signals induced by the protective climate of backing by the synthetic fuels corporation.

Second, the cost effectiveness of the synthetic fuels technology would be largely time-dependent and out of date by the year in which it was completed. Specifically, the competitiveness of the fuel produced would depend upon the relationship between the cost of the capital required to build the plant at the start and the future price level of competitive oil a decade later when the plant actually produced.

In the absence of a long-termed continuation of subsidization, interested companies would not be much better off in determining whether to invest in synthetic fuels than they are now. The importance of these two points cannot be overemphasized, because the Energy Committee bill is predicated on the belief that many new synfuel plants would be built after the liquidation of the Corporation and that the quantity of synthetic fuel produced by these latter investments would far exceed that produced during the existence of the Corporation.

Fifth, the proposed subsidy program would be detrimental to the economy by competing with other more desirable investments.

This program could only drain badly needed capital from throughout the economy for potentially inefficient uses which, in turn, would limit the productive capacity of the economy in the next decade, thereby contributing to further unemployment.

Sixth, a subsidized synthetic fuels program would artificially inflate energy consumption and discourage diversification.

In these days of dwindling fossil fuel reserves, prices should be permitted to rise to their true economic values in order to limit consumption. Yet, the synthetic fuels program would artificially hold prices down, thus giving the wrong signal to consumers about reducing their consumption. At the same time, these consumers would actually be paying for the increased production cost of synfuels through taxes. In addition, the incentive for new exploration of conventional energy sources or development of other energy technologies would be reduced because producers would find it easier and less risky to take Government subsidies for synthetic fuels production.

Seventh, the proposed synthetic fuels program might have to be subsidized long after the liquidation of the Corporation.

Synthetic fuels might never sell unless the Government continues to subsidize the price difference between synfuels and conventional oil. They may have to be a reality we will have to face. Plants in which large amounts of capital have been invested might force the Government to make hard choices between giving up the investment on the one hand or keeping unprofitable plants in business on the other.

In the final analysis, I tend to think that the conventional market stimulus would be vastly preferable over vast, direct, Federal investment in synfuels production to reduce the dependence of this country on foreign fuels.

Mr. JOHNSTON. Will the Senator yield?

Mr. HATCH. Yes.

Mr. JOHNSTON. What did the Senator mean by the conventional market stimulus?

Mr. HATCH. By what?

Mr. JOHNSTON. The Senator said we would be better off with a conventional market stimulus.

Mr. HATCH. That means lifting the price controls. In other words, give incentives to the private sector to find more, to discover alternative forms of energy, let the price lift so that people pay the replacement cost and, in the process, we will reduce demand for the utilization of oil and gas in this country.

Mr. JOHNSTON. As someone who has always been trying to give more incentive to oil and gas, does the Senator think there is a likely prospect in this Congress this year, next year, any time in the foreseeable future, where more deregulation of oil and gas prices will be a possibility or a feasibility?

Mr. HATCH. Yes. If we can continue to work together as we have in the past, I believe within the next 4 to 6 years we will bring about total deregulation, as people begin to realize that is the only way to have incentives enough to resolve the difficulties we are presently undergoing.

I think if we do that, and I am a firm believer that we have to develop the alternative fuel systems as well, including synfuels, we will be able to do both and, in the meantime, the incentives in the private economic system would not only reduce demand, but also increase supply.

Mr. JOHNSTON. I hope the Senator will think carefully about being for this bill.

Mr. HATCH. I am.

Mr. JOHNSTON. The principal tool in this bill is the price guarantee. The Department of Energy projections are that it would take an average price of \$36.10 in 1979 dollars to make synfuels a paying proposition.

Mr. HATCH. Whose opinion is that?

Mr. JOHNSTON. The Department of Energy.

Mr. HATCH. I hope their opinion on that is better than many others that are brought forward in economic matters.

Mr. JOHNSTON. I quite agree.

Mr. HATCH. I have talked with a number of experts in synfuels, particularly on tar sands, oil shale, who indicate we could produce synthetic fuel from a commercially competitive standpoint for considerably less than \$36.00/bbl.

Mr. JOHNSTON. I have heard those same estimates. I hope they are correct.

Mr. HATCH. I do, too.

Mr. JOHNSTON. But the point is that nobody can predict precisely where the prices will go. But all we have to do is make a Government guarantee of a price that is going where we think it will go anyway, especially with a spot market price of \$48 last week. All we have to do is give them that guarantee that, let us say, by the time they are on line that we will guarantee a price of \$35 a barrel by 1987, let us say, which I think is a very safe bet. If we make that guarantee and that is sufficient to get them on line, it seems to me that is a guarantee for the American people. Because if prices reach that level, then it costs the American public nothing. All we have done is that we have made a guarantee which we do not have to pay off on.

On the other hand, if prices are less than that, then the American people win even more because, even though that would cost the corporation some dollars, the American people win by prices not having gone to where we think they will go anyway.

So it seems to me it is the genius of this price guarantee proposition, that the American people win if prices go up and they win if they do not go up. Either way, it is a good deal for the American public.

Mr. HATCH. It may be very true, in order to have an efficient and good program there will have to be some sort of guarantee against an oil price warfare that could be brought about by concerns, interests and powers outside the scope of the United States ability to control.

On the other hand, it may very well be if we want a program, and I do, and I think we have to go ahead with alternative fuels development, that the Federal Government will have to maintain a minimum price and a minimum market volume for those synfuels to be developed now.

On the other hand, the question is, should we do it by creating a governmental corporation, albeit outside of the Government? I claim that could interfere with the incentives that could come from free market development.

I have talked to many leaders in the field, oil and gas producers and others who literally are leaders in synfuel technology development, who say that if the Government is off their backs, they could produce at a profit now. I have talked to advocates on both sides of

this, some feel they want the Government to come in, finish the job for them. The others say that if the bureaucrats are off their backs, that they could solve problems far more readily than with Government interference.

A number said they would prefer the Banking Committee bill because it does give a greater measure of freedom, in their eyes, with at least some protection.

The distinguished Senator is one of my acknowledged experts on energy in this Senate, he has really worked for——

Mr. JOHNSTON. I thank the Senator.

If I may just reply, Mr. President, to that, and let me tell the Senator on that point——

Mr. HATCH. Let me just finish making the point.

Mr. JOHNSTON. Yes.

Mr. HATCH. Then I will be happy to yield.

The fact is that there are, basically, three viewpoints. One is, just let us alone, we can develop them, but we are afraid once we put the tremendous capital into the programs, there might be some price war caused by those who would care to kill the program.

There are those who argue, let us let the Government do it for us. There are those who argue for a reasonable composite of the two, which appears to be closer to the Banking Committee position.

I have to acknowledge I have difficulties with all three positions. I am trying to solve those in my mind, to come up with a better approach.

What bothers me is that in the committee bill they are going to spend, whether we like it or not, \$88 billion. That money has to come from somewhere.

Mr. JOHNSTON. Will the Senator yield on that point?

Mr. HATCH. Yes.

Mr. JOHNSTON. Under the Senate Energy Committee bill, we authorize \$20 billion.

Mr. HATCH. I understand. But for the first phase, and when those 3 years and that analysis is done, then we have \$66 billion, unless either House comes in and denies it, and I predict that will not happen.

Mr. JOHNSTON. In addition, first of all, we have the one-House veto.

Mr. HATCH. But that is not going to happen.

Mr. JOHNSTON. Well, it depends on the plan, whether it is good and appropriate.

Second, we must have the affirmative action of Congress in appropriating additional moneys because no money may be expected in phase 2 until and unless it is appropriated.

Mr. HATCH. That is true. But like all Federal programs, once they start, and we start funding them, they are difficult to kill. We do not want to admit that it was a big bust to begin with, that we did not face the realities of the problems on the floor, and we just continue to fund them and the taxpayer winds up being shortchanged.

Let me say something. Corporations do not pay these taxes, this \$88 billion. We consumers pay those taxes. Anybody who thinks otherwise does not understand economics.

The fact is that the big oil companies are not paying taxes into this Government. It seems, theoretically, to pay what are called taxes.

But they are just passing them on to the consumers. So the consumer ultimately pays the taxes. That is what a lot of consumers fail to recognize.

What I have difficulty with, primarily, with the approach around this surrealistic community, is the belief that the Federal Government can handle our moneys better than private sector organizations can.

I have not seen any evidence that the Federal Government understands anything about cost effectiveness. We may have to have a synfuel program. Let us assume that is essential, and I feel that it is essential. The question is, what is the best approach to use? Is it the committee bill, the Banking Committee bill, the House bill, or a composite of all three? I suspect that before we are through, it will be a composite of all three. I just hope that the final measure eliminates or sharply limits any direct investment of Federal moneys in the ownership or management of energy production facilities. I also hope that we do not spend more of the public's money than it can afford.

The trouble is with a bill that gives the Federal Government the potential to launder money through its bureaucracy. Bureaucracies tend to feed on consumer funds such as these, which are really costs that are passed on to the consumers as an additional tax or inflation: a tax that we in Congress are not willing to assess directly, and inflation that we assess even more indirectly. We say that we are going to benefit the consumer by spending \$88 billion for the synthetic fuels program at presumably no cost to them. The end result, when we launder costs and put them through the Federal Government which has no functional incentive to manage and operate efficiently, is an insidious fraud against the public.

That is why I have a tendency at this point to agree with the Banking Committee version of the bill.

I do respect my very good friend and colleague from Louisiana. I know he understands this area very well, as does my friend from Oregon. Both are dear friends and both are highly respected in this body, and they are deeply respected by me. But I have these problems, and I think they are legitimate, significant problems.

Every time we want to solve a problem, we indirectly tax the people more and we say that we have to hit those big corporations. We say that we should not let those big oil companies get away with those profits, rather than saying to the oil companies that they should spend the money to find alternative forms of energy. We do not say that. We say that we are going to spend the money for the benefit of the people, and we wind up with less oil and gas and wages that buy less and less every day.

The Government never has been competitive nor efficient, and it never will be. In the end, the consumers pay for it all, anyway. We do this so that we can tax the people indirectly because we do not have the guts to tax them directly.

That is not necessarily a criticism of this bill, but it smacks of criticism of this bill.

It bothers me, because I do not see us putting the incentives where they really should be, in the efficiency and the productivity and the

competitive areas in the private sector, and I do not think this does it.

Then, again, I am just one Senator, and all I can do is speak up and do the best I can.

I am interested in listening to the Senator from Louisiana, and I will be listening carefully to this debate. Right now, I have to say that I lean against the Energy Committee version of the bill because of the \$88 billion. I do not think there is any question that we will have to provide a floor in order to have the synthetic fuels industry develop. I think most people have to acknowledge that that is the way it is, because it is going to cost billions of dollars. The question is, should we do it through the Government by laundering the money through a bureaucracy that never functions well, or should we do it through the private sector, through incentives? That is the question involved in this debate.

I believe that the Senator from Louisiana desires as much as I do total deregulation in the field of energy. I also agree with him that there has to be a change in Congress in order to do so, in order to benefit this country in the appropriate manner, and I believe that is going to occur, and it will occur in the next 4 to 6 years. Until then, we have to do the best we can, and I assume that one of these versions will be the best we can have in this area.

Mr. JOHNSTON. I thank the distinguished Senator from Utah, because he has contributed much in his ideas on energy.

It seems to me that if we can get across—those of us on the Energy Committee—what we are trying to do, we can count on the Senator for support, and I hope so.

First, let me talk about the \$88 billion. The original program of the President, which was \$88 billion in scope, was referred to our committee. We held hearings, and we came to the deliberate, decided, intentional decision not to fund \$88 billion, for all the reasons the Senator from Utah has stated. We simply said \$88 billion is too much.

Mr. HATCH. But, in essence, that is what it is.

Mr. JOHNSTON. What we decided to do was to go to two phases. In the first phase, you put one of a kind on line. Then, while they are developing their information base, their one-of-a-kind projects, such information as economics, the environmental effect, the social effect, what it does to the various communities—after they are well enough along into that process, about 3 years along, then they should be in a position to recommend a strategy to Congress, a long-term strategy. That strategy is subject to the one House veto.

Mr. HATCH. My experience with bureaucracy is that they typically recommend a strategy that perpetuates them and benefits them, and does not benefit the taxpayers of America. That is the problem I have with it. Then Congress will not act to change that, because we created this monster, and we will have to live with it for the rest of our lives.

Mr. JOHNSTON. I can tell the Senator that it is no more my intention to go with an \$88 billion program than it is his.

Mr. HATCH. I know that.

Mr. JOHNSTON. If that is the chief concern here, we may be able to change that language, alter it slightly, to make it more clear than it is: That the second step in this process, which is the replication of what we have done in the first step, can be taken only with the assent of Congress. That, to me, is clear in the bill.

Mr. HATCH. It is not clear. The second step says that we have to act to disaffirm, rather than that it cannot go forward without an affirmative approach of Congress. I would be much more interested in the Senator's bill, which he is sponsoring and arguing for, if we had a little stronger language such as that.

Mr. DOMENICI. Would the Senator from Utah vote for it if we did that?

Mr. HATCH. I do not know. I certainly would consider it more than I am considering it right now. There are some other aspects of the bill that I find to be a little odious, also.

Mr. JOHNSTON. I say to the Senator from Utah that that is no more my intention than it is his; and if there is something we can do to make that intention of the committee clear—

Mr. HATCH. Does not the Senator agree that the language is written so that in order to stop phase 2, which involves \$66 billion, which inevitably will be brought forward by the bureaucracy, which will want to perpetuate itself—does not the Senator agree that the only way to stop that is to have a one House veto? Is that not the way it is written?

Mr. JOHNSTON. I think the Senator misconceives our program.

Mr. HATCH. I do not think I do.

Mr. JOHNSTON. The one-House veto applies to the strategy. In other words, the synfuels corporation comes in with a strategy. They may say, "Yes, we want to go." They may say, "No, let's delay. Let's not decide until we get the plants on line and producing." We do not know what they will say. But they present that strategy to us, and they cannot even ask for money until the strategy is approved.

Mr. HATCH. The Senator is saying that it becomes an annual appropriations matter which the full Congress can look at each year?

Mr. DOMENICI. There after.

Mr. JOHNSTON. Under the \$20 billion program—and the \$68 billion program in phase two would be like the \$20 billion program—you have a two-phase appropriations action. The first phase is to appropriate appropriation authority, and we have done that in the appropriations bill which is now pending in Congress. That is \$20 billion appropriated to this revolving fund.

Mr. HATCH. And if phase three calls for \$68 billion, that will be appropriated as well.

Mr. JOHNSTON. Follow me on this. We have to have the affirmative action of Congress in appropriating the budget authority. Second, it requires a second appropriation. So that, in effect, in the \$20 billion program now pending, it is going to require two acts of Congress before the money is forthcoming.

So what we have before we can go into phase two here is a one-House veto on the strategy and two acts of Congress with budget authority and with appropriations that have to be approved affirmatively.

To us on the Senate Energy Committee, that meant, in effect, that you are going to stop and let Congress decide when, if, and how much on phase two. That always has been our intention.

We philosophically rejected the original approach in the administration which said, "Let's go with the \$88 billion program now—with \$22 billion additional authorized every other year."

We specifically rejected that.

I say one other thing to the distinguished Senator. When he makes his decision between the Banking Committee bill and the Energy Committee bill, and particularly with reference to this Corporation, let me tell the Senator why I think the Corporation will work much better. We set up an independent corporation with five members which cannot be removed except for malfeasance or nonperformance in action. It is not as bad as an impeachment. In other words, they can be removed only for cause. The President has indicated he will appoint people to that Corporation who have as their first interest the fulfillment of the object of this law which is to demonstrate synfuels technology. They will not be charged with anything else except demonstrating that technology. And they will be insulated from Presidential elections, from the latest fad in Congress, and from the latest whims of the American public in terms of changes of opinion.

That danger of a change in opinion may be totally imaginary. It may be that the American public, Congress, and the President have all resolved now and forever to go through with this program.

But let me tell the Senator the history of synfuels in this country would indicate that is not so. We have started and stopped so many times that industries which would contract with the government agency will have a lot more confidence in this kind of synfuel corporation which is made up of tough-minded business people rather than they would in dealing with DOE. I share with the Senator his sentiments about DOE. It is a bureaucracy as bad as I guess any we have. They are slow-moving. You just cannot get anything out of that crowd over there. I mean the trouble with energy in this country may be epitomized to some extent by inaction in DOE. Let us get a separate corporation, give them the mandate, and say:

Look, put on line about 10 of the synthetic fuels plants so we can find out if they work, if they work economically, and if they work environmentally and if they work socially, but let us do it once and get them on line and let us do it as quickly as we can consistent with sound economics and sound environmental policy.

That is the genius, it seems to me, of our bill.

Mr. HATCH. I understand.

Mr. DOMENICI. Mr. President, will the Senator yield?

Mr. JOHNSTON. Certainly, I yield.

Mr. DOMENICI. I say to my good friend from Utah I agree, as one of those who have worked hardest on this bill——

Mr. HATCH. And I commend my colleague.

Mr. DOMENICI (continuing). That bureaucracy is what is going to hold up synfuel, and he should be down here arguing against that Banking Committee bill and the expansion on it. It is going to be expanded before it leaves the floor to \$20 billion, because it is acknowledged that \$3 billion will not do anything in the field of synthetics. They are going to expand it. And what is going to be the result? Exactly what concerns the Senator, because the Departments of Energy, Transportation, and some other bureaucracy, are going to run that program. What we decided was that that will not work. The private sector will not contract with that kind of institutional relationship. It just will not fly.

So if the Senator does not want any, then he should vote against ours. If he does not want any synthetic fuels vote against this one because if he is voting against ours to have theirs because he wants synthetic fuels, then every one of his arguments apply, every one. He will have bureaucracy ad nauseam. We have had it for 4 years. There is an authority down there and they have not produced one single pint of synthetic fuel and financial experts, contrary to what is being said that they do not favor the Corporation, favor everything the Corporation stands for and can do.

Ask yourself: If everyone says what this Corporation can do is what we need, but we are not for it, then what are you for? They will admit that you will not get any production through the bureaucracy. So we would be at this point: We get no synthetic fuel development, a nation with huge resources sitting there undeveloped, with our defenses in a state of vulnerability every day, 700 billion barrels of crude oil locked up in shale, 700 billion.

Mr. HATCH. I am very aware of that.

Mr. DOMENICI. We are hostage by 8 million a day. The Senator gets up every day worried about America because of energy, requiring 8 million barrels a day. We have 700 billion barrels locked up undeveloped, and 300 years of coal, not barrels, 300 years of today's Btu's locked up in coal. Are we just going to burn it or are we going to turn it into gas, going to turn it into liquids, going to turn it into ethanol which in turn makes gasoline? No, some say, let the South Africans do it with American genius while we stand around arguing precisely as the Senator has that the bureaucracy cannot do it and conclude wrongly when we say, therefore, do not vote for the corporation. Because that is precisely why he should vote for it, because it is not bureaucracy. It is not civil service. It is five people. The President is committed to a prominent businessman to head it, goal-oriented, hard-nosed.

I commend the testimony of one of the best finance men in America, David Goodman, of Morgan, Stanley & Co., who concludes precisely as the Senator does:

Philosophically I hope we do not have to have a corporation. I wish we did not have to because I do not like to create new entities. However, it will never happen dealing with a bureaucracy. It will never happen with a Banking Committee bill. I reluctantly conclude, we better create an independent entity, give it hard decision-making ability, and get on with producing it.

Mr. HATCH. I think the point that the Senator from Louisiana made was a good one, and that is when are we going to be able to get full deregulation which would provide an overwhelming incentive to go out and find the solution to these problems?

Mr. DOMENICI. We will not get it in time.

Mr. HATCH. There is some question that we will ever get it. If I am right, it will be in the next 4 to 6 years. That is still a delay factor that could be very harmful. That does argue favorably for some aspects of the Senator's position. I have to admit I am still considering both versions of this thing.

The point I am more concerned about than anything else, though, is the \$88 billion cost. Maybe \$3 billion will not do much. The Banking bill does provide more actual involvement than \$3 billion, but \$88

billion through the Federal Government, as a matter of fact, with the right to put this money almost anywhere these few people at the Energy Security Corporation desire to put it, I do not think that is the answer either. As a matter of fact, I know it is not. I am sure that if Gerald Ford were President there would be concern on the other side of the aisle about who is going to head this Corporation; while Jimmy Carter is the President, there has to be concern on this side of the aisle. If Ted Kennedy is President, there has to be concern on both sides of the aisle, as far as I am concerned, because he has a specific philosophy with which many within this body on both sides of the aisle disagree as far as energy and energy development are concerned. But that does not mean that his ideas are not good, they are simply at odds with those of many of his colleagues.

I would say, in summation, a commercially viable synthetic fuel industry cannot be created in a synthetic economic context, and that may be what we are doing here, violating the basic role of the free market, which is more likely to create white elephants than to successfully prime the pump of synthetic fuel.

Indeed, the Government tendency to subsidize energy prices discourages industry from synthetic fuel production because businessmen fear tampering with their own prices. When the time for syn-fuels comes, American firms will be recognizing it, and I think act accordingly.

What I am worried about is the wasting of scarce American capital. Now is certainly not the time to be wasting scarce capital pursuing big Government's traditional predilection with the Rolls-Royce solutions to problems that would be better solved with pickup truck ideas. More importantly, it is not the time to promise the public free, Government solutions to problems that under any circumstances are going to be very costly to all Americans.

One of my dear friends happens to be Dr. Oblad at the University of Utah. Alex Oblad is one of the top catalytic chemists in the world. At the University of Utah they have been working on developing oil from tar sands for the past several years.

They feel they achieved a breakthrough, and they can solve the remaining problems. With a few incentives they can literally develop the tar sands, vast quantities of which exist in Utah and elsewhere in this country and in Canada. Yet they have asked for a mere \$350,000 for the University of Utah to be able to accomplish this, and instead they have been cut back 60 percent.

Mr. PROXMIRE. Mr. President, will the Senator from Utah yield?

Mr. HATCH. I yield.

Mr. PROXMIRE. I want to commend my good friend from Utah, and I want to point out that in his colloquy with the Senator from New Mexico he seemed to have been put in the position of not favoring synthetic fuel.

Mr. HATCH. Oh, no, I favor it.

Mr. PROXMIRE. I am sure the Senator does. The Senator's position in support of the Banking Committee bill is based on the fact that this is the way you are much more likely to get an orderly, more effective, and substantial production of synthetic fuel than through a crash program.

Certainly it has been my conclusion, and the experts who testified before our committee were unanimous in the notion, that if you go ahead with a crash fuel program, you go ahead with a huge Government corporation dominated by the Government, that you must—

Mr. HATCH. By one person, in essence—

Mr. PROXMIRE. By one person.

Mr. HATCH. Is what is going to happen, whoever he may be.

Mr. PROXMIRE. Furthermore, you are guaranteeing, if you try to have this very large number of projects come on all at once, a tremendous inflation in equipment prices in that area, in manpower prices in that area.

I pointed out this morning the number of professionals who are capable of working in this area are about 45,000, and these projects will come in and demand 24,000 in addition, to that. Where are they going to come from? I mean the effect of this program is bound to be distorting, inflationary, and inefficient, and could result in discouraging the private sector from moving in as only they can move in, efficiently and effectively, to produce what we need. That is why the private sector, so far as I can tell now, is overwhelmingly in favor of the approach we have suggested.

Mr. HATCH. I appreciate the comments of the distinguished chairman of the Banking Committee.

Mr. DOMENICI. Mr. President, will the Senator clarify something for me? I think the Senator from Wisconsin was not present when you said you had not made up your mind to support any of the bills at this point. He is indicating you support the banking bill. You have not said that, have you?

Mr. HATCH. That is correct. I have not made up my mind on it, but I will say this: I do tend to support the banking bill over this one because of the potency of \$88 billion in direct Government expenditures and other dubious approaches that are taken in this bill. But basically they have been compromise approaches trying to put something together.

I commend both of my colleagues who are managing the bill at this time because they have both worked long and hard in a very difficult context and in a difficult committee, which we have watched operate now for the past 3 years and amid tremendous conflicts in the field of energy in both the House and Senate, and both have worked long and hard, I think favorably, for the American people.

Mr. JOHNSTON. Mr. President, I wonder if the Senator would yield?

Mr. HATCH. I commend the Senators for it.

But, on the other hand—and I will yield in just a few seconds—I am concerned about the bill that has come out of the Energy Committee, and it does bother me.

I yield to the Senator from Louisiana.

Mr. JOHNSTON. I wonder if the Senator will yield long enough for me to clarify something that the Senator from Wisconsin stated when he just said that as far as he could tell the private sector is for the banking bill. Let me say that it is a little bit difficult to find out precisely where the private sector is, but I am advised that, for example, the American Gas Association is for the Senate Energy Committee bill; I am advised that the National Association of Manufacturers

is neutral on the question of the Banking versus the Senate Energy Committee bill. I do not know where the Chamber of Commerce stands.

Mr. PROXMIRE. The Chamber of Commerce definitely is for our bill. They were at our press conference.

Mr. JOHNSTON. The American Gas Association is for our bill; the National Association of Manufacturers is now neutral.

Mr. PROXMIRE. Well, may I say the National Coal Association has changed their position. The letter read by the Senator from Colorado indicated they now support the Banking Committee bill. Also the Committee on Economic Development which, of course, is an outstanding business organization, supports it; also the Chamber of Commerce; also the National Federation of Independent Business supports it. Also, the American Mining Congress supports our bill.

I would say on the basis of that, that it is a pretty solid support in the business community for the banking bill.

Mr. DOMENICI. Mr. President, will the Senator yield? The Coal Association supports it if you will amend it to \$20 billion. They do not think \$3 billion does very much.

Mr. PROXMIRE. That is what the telegram says.

Mr. DOMENICI. They do not put \$3 billion in, but they indicate a minimum is \$20 billion.

Mr. HATCH. Since I have the floor, if I can say this, would the two Senators who are managing the bill support it if we had \$20 billion? The fact is you would not. We are talking about \$88 billion.

Mr. PROXMIRE. That is right.

Mr. HATCH. My problem is we come up with these programs around here that are really, in essence, indirect taxes on the consumers and taxpayers of America. We do not go up front and tax them, but we wind up really escalating costs more than ever, and in the process a small select group of people here in Washington wind up buying votes with that money, and that is really what happens.

Maybe there is less chance with one supposedly quasi-governmental corporation with only five people at its head, one man who is supposed to be a super businessman whom everybody is going to love, who can make these decisions in an impartial, wonderful, reasonable context.

I do share—and I might mention this to my good friend from Wisconsin—the concern that my two friends from Louisiana and New Mexico have raised that in the Banking Committee bill we will be turning over whatever funds are approved, assuming that the Banking bill is passed, to the DOE and other presently existing agencies of Government that have not shown a propensity for being able to produce energy solutions for America thus far.

I have to share their viewpoint that it may be impossible for them to ever show a propensity that benefits the American people with regard to the creation of energy or the conservation of energy in America.

Part of that, though, I still have to admit is the Congress' fault because we have not faced reality and acknowledged that really deregulation of prices is the best way to create conservation and stimulate production. It is the best way to reduce the demand, and probably the best way to increase supply, as you give incentives to go out and find more and make it economically viable to do it.

I have just brought out another point. Dr. Oblad, I just chatted with him yesterday, told me that for \$350,000 they can continue this

tremendous program of resolving tar sands production problem and they have been cut back 60 percent by the people here in Government. What is \$350,000 when we are talking about \$88 billion, and here is one of the leading scientist in the world working there at the University of Utah to achieve significant progress toward a solution? I do not understand. I never will understand it. We do talk about \$88 billion, and we cannot even raise \$350,000 for one of the best catalytic chemists in the world, and a whole crew of people he has brought together, when he is working without salary, at the University of Utah, donating his time. To me that does not make sense, and yet that is exactly what is happening.

I do not think any of you here on the floor would disagree with what I am saying right now. When you have somebody donating his time, who is an acknowledged expert in the field, who has brought together tremendous expertise, and who has accomplished more in this field than anybody, and yet he cannot even get some Federal funding that is commonly given in this area.

I think that is a tragedy.

Now, all I am trying to say—and I guess I should end here for today—because I will have more to say on his bill—is that I worry about the way both bills are written. I am extremely concerned about \$88 billion laundered through the Federal Government that we have to pay throughout this country.

The Western States have a tremendous reserve of synthetic fuel resources. We have a tremendous amount of oil that can be drilled for in the overthrust belt in Utah and its extension in other Western States. It used to take up 90 days to get an oil well drilling permit. Now it takes a year and a half or more.

Mr. DOMENICI. Mr. President, will the Senator yield for a question? What does "laundered" mean? How are we going to launder the taxpayer's money through this bill? Maybe I do not understand the bill.

Mr. HATCH. When I am talking about laundering the money, I am talking about indirect forms of taxation that quite literally come from the private sector having to support vast non-productive bureaucracies in addition to the actual private investments required to produce energy. I do not think that the Energy Committee's bill corrects this.

That is what bothers me. There is \$88 billion. Who is going to work with that money? We may have some superbusinessman who would please everybody in America. I would like to meet him if he can do that. Some day we may find such a man, but he has to have literally thousands of bureaucracy members to help administer this program. I do not think there is any way around it. Maybe I am wrong about that; I would be happy to be corrected if I am wrong.

We are talking about \$88 billion bucks that have to come from somewhere. We are not going to tax the people. We are going to tax them indirectly. We are going to tax them indirectly by making them pay more for the energy that is found.

These bills concern me. I want synfuels developed. I want alternative energy sources developed. I think if we would give incentives to the private sector, we could do that, and I think probably what I am

talking about more than anything else is total deregulation of the market, so that could give them the incentives to go out and find oil and gas.

The people of the Northeast, who are really energy-insufficient at this time, many of the representatives of the people of the Northeast are constantly arguing for the lower prices that come about as a result of price controls. The fact of the matter is that the more we keep price controls on, the less energy we are going to have, and the higher prices are going. Some of us who have energy-rich States, albeit manufacturing-poor States, perhaps—I am not talking about Utah, because I think we are rich in both areas; we are certainly rich in energy resources that could be developed for the benefit of the East—I think we could solve most of the East's problems, but the only way we are going to get there, certainly, is to have total deregulation of the cost of energy in America. With the replacement cost of energy rising, we would, it seems to me, naturally conserve, and will find more energy and have more energy to help resolve the problems we have been going through.

I am not sure that the Energy Committee version does that. I acknowledge the tremendous efforts of my two colleagues who have argued for that bill on this floor. I have inestimable admiration for both of them. I have seen the frustrations they have gone through over the last 3 years and before that. I would like to support them under ordinary circumstances, and I am not sure I will not support them yet; but even they have to admit there are better ways of solving these problems than this particular bill, and perhaps even than the Banking Committee version.

The question is, Is the Banking Committee version a better bill in the final analysis, and will we be farther ahead, with less cost to our consumers and more incentives to go out and find more oil and gas and alternative forms of energy to solve the problems we have in this country?

Those are the problems as I see them. I think it makes no sense that, in order to go out and buy more votes, we will have an excess profits tax which, again, will be laundered to fit the bureaucracy, to the detriment of every consumer in America, under the ostensible purpose of nailing the big oil companies, which may have faults, but, on the other hand, I am sure could be given incentives to spend those moneys in a conservative, free enterprise, private sector, efficient way, to give them incentives to go out and find more oil and gas and develop alternatives as these supplies dwindle. And solve the problems this country faces.

Mr. President, I yield the floor.

(Mr. Pryor assumed the chair.)

Mr. EXON. Mr. President, I would like to address myself to the issue that confronts us in the United States Senate. I have been studying this issue for some time now. I do not serve on either the Banking Committee nor do I serve on the Energy Committee. But, over the last several years, I have had a great deal of experience, both as an individual American and as the Governor of a State, in trying to allocate and administer the Federal energy programs.

Frankly, the Federal Government has never come up with a program that is very workable or does too much good. I am not sure that

the one, two, or three bills that we are discussing here are going to solve the problem.

But I say, once again, let us put this in perspective. The facts of the matter are that the United States of America today is at one of its most serious crossroads in this Nation's history. If we were in this room today debating whether or not we were going to spend \$88 billion, maybe, in some form on a phased basis for national defense, there would not be any question about how the vote would go.

May we have order in the Senate? I am delighted to see this many Senators on the floor of the Senate, but I would like to have them hear what I am saying.

THE PRESIDING OFFICER. The Senator from Nebraska is correct. The Senator has the floor. Senators should show him the courtesy of an attentive listening.

MR. EXON. I do not particularly like the part of the Energy Committee's bill that says we are going to create a new bureaucracy. I do not like that. It would seem to me that we should somehow be able to work this through the Department of Energy, which is already an overblown bureaucracy that has not done its job for the last several years. Nor am I particularly thrilled about that portion of the bill that says that we are going to take \$20 billion to start with and possibly up to \$88 billion before we are finished, to pump taxpayers' money into a program that some think the free enterprise system can solve. So I am not happy with those parts of the Energy Committee's recommendations.

But, after studying this and after listening to arguments on both sides of the issue by Members of this body whom I hold in the highest possible esteem, I am convinced, Mr. President, that we only have one real option, and that is to come down in support of the bill offered by the Energy Committee, because it seems to me that every other thing before us is a situation, once again, of too little and too late.

How late are we? Mr. President, in 1973, when we were strangled by the first embargo on oil, we were importing at that time about 35 percent of our petroleum-based energy needs from abroad, most of it from the OPEC countries. There was a lot of wringing of the hands at that time and there was very little action. We were talking then about an energy crisis.

But since 1973, despite well-intentioned Federal programs, despite the creation of a Department of Energy, despite the creation of what was supposed to be some incentive, despite the fact that we have finally come to the deregulation or partial deregulation of oil domestically produced—and I recognize that we have not given that enough time to work yet—but despite all of those actions during those intervening years from when it hit us between the eyes in 1973 up until now, we have increased, Mr. President, our imports of oil from 33 or 35 percent, until today 50 percent of the petroleum that we consume in the United States of America is being imported.

What do we see looking into the future? I do not think any of us know what we are looking for in the immediate future. But we have got to try to look through a window, if you will, and see where we are.

I hold no torch for the major oil companies, nor do I think that they should be made a political whipping boy time and time again and

be blamed for all of the problems that we have had in the energy area. They are at fault, I am at fault, as an individual, because I use too much energy. Certainly the Congress of the United States, the House of Representatives and the Senate, have been at fault. Certainly the executive has been at fault. But I believe that we should give credit where credit is due in this instance, at least at this time. The President of the United States has come forth and is backing the first program that we have had that attempts to lick the problem.

Looking into the future, Mr. President, I ask unanimous consent to have printed in the Record following my remarks an article that appeared in the Oil Daily on October 29, 1979, by Mr. David Tinker, wherein he quoted an executive of the world's largest oil company, Exxon Corp. The title of the article is "U.S. Imports To Reach 64 Percent by 1990 Despite Quotas, Exxon Executive Predicts."

The PRESIDING OFFICER. Without objection, it is so ordered. (See exhibit 1.)

Mr. EXON. Mr. President, I would like to point out that the first paragraph of this article states as follows:

The United States will end up importing up to 64 percent of its crude oil needs by 1990 despite a downward trend in refined products consumption, an Exxon Company U.S.A. official predicted here.

He goes on to say that between now and 1990 we will be in a very tight balance, and if there is another Iranian thing we will have another serious shortfall.

We are strapped today.

The news today says a group of Iranian students, of all things, has taken over the U.S. Embassy in that country and we are powerless to do much about it.

I heard Senator Jackson on the floor of the Senate this morning, when I was in the chair, talking about the fact that we are powerless. I think most of us would like to say let us call everybody out of there. Let us call them home and let Iran worry about themselves.

Do you know why we cannot do that today, Mr. President? The facts are that the oil imports we have from Iran are in such a tedious balance in meeting our daily needs where half of the gasoline I burn in my automobile and half of the gasoline burned by people of the United States across this land is imported from abroad, and yet a rather small percentage of that comes from Iran.

The facts are that that is such an important part, and it is in such a tedious balance that we are facing day in and day out that we dare not act.

What we are debating here today is whether or not we are going to do something, even if we are going to make some mistakes, in relieving the situation that this country is confronted with today and has been confronted with for a long, long time. That is the foreign powers today literally have their hands around our military and economic necks in the United States of America.

I would say to you, Mr. President, that the prediction by the president of the Exxon Corp. is likely to come to pass, if, Mr. President, the people in that part of the world are still interested or are still in a position to ship their oil to us which we so badly need.

I join with the vast majority of my colleagues in the Senate today in concern over the ever growing power of the Soviet Union militarily. I would predict, regardless of the outcome of the upcoming debate on SALT, we are going to be spending billions and billions of dollars more for national defense because that is something that most people in the United States can understand. They are rightfully fearful of the ever growing power of the Soviet Union in the area of military expansion, if not superiority in some areas, over the United States.

The point that I am trying to make, Mr. President, is that what we do on energy is, in my opinion, even more critical in the years ahead, certainly by 1990, to the interests of the United States and the entire free world, even than the increased military expenditures we are going to make. We really do have a crisis.

I do not know, Mr. President, whether we are taking the right action or not, but I would say, in closing, that, after studying these bills—there is no perfect bill—I believe it is in the best interests of the United States of America if we get on with endorsing the proposal which has been carefully thought out by the Energy Committee of the Senate. While it is not a perfect bill, if we are going to make a mistake, Mr. President, let us make it on the side of the United States of America, or if we are going to err, let us err on the side of too much investment to meet this Nation's energy needs.

EXHIBIT 1

U.S. IMPORTS TO REACH 64 PERCENT BY 1990 DESPITE QUOTAS, EXXON EXEC PREDICTS

(By Dave Tinker)

DENVER.—The United States will end up importing up to 64 percent of its crude oil needs by 1990 despite a downward trend in refined products consumption, an Exxon Co. USA official predicted here.

William R. Finger, Exxon's coordinator of energy analysis, said the Organization of Petroleum Exporting Countries has the capability to supply U.S. oil needs. However, they can "collapse that number."

"Between now and 1990, we will be in a very tight balance. If there is another Iranian thing, we'll have another serious shortfall. If not, oil supplies should be sufficient," Finger said.

ABOVE CARTER QUOTA

He admitted that the 64 percent import level would surpass President Carter's goal of 8.5 million barrels a day, and probably in the next two years.

"To go less than that (the 8.5 million), something must happen in the 1980-82 time frame. The government anticipates a higher domestic production level. If they're right, then the 8.5 is attainable.

"But it's hard to see what can hold up domestic production. The biggest impact on consumption is the economy. You can't hold down consumption and have economic growth," Finger asserted.

Finger's projections show economic growth shrinking from a 4.1 percent gross national product increase for the past 10 years to about 3 percent. At the same time, energy demand will drop from about 4.1 percent to 1.8 percent.

"The ratio of real economic growth to energy growth is changing," he noted. The highest savings between now and 1990 will come from transportation, including automobiles, which will cut consumption by 35 percent. That compares to a savings of only five percent in 1977.

"What this will do," Finger said, "is turn gasoline from a growth fuel to a non-growth position. Gasoline in the mid-80's might shrink to six million barrels a day demand from 7.5 million in 1978. Demand in 1979 is projected at about seven million barrels."

INDUSTRY SAVINGS

Industry will account for the second highest energy savings up to 1990, cutting its use by 23 percent. Finger explained that by noting that industry is presently in a retrofitting phase which will be complete by the mid-80s.

Electrical utility consumption will grow only 3.6 percent, Finger said.

Mr. RANDOLPH. Will my able colleague from Nebraska yield?

Mr. EXON. I will be glad to yield.

Mr. RANDOLPH. I think it is heartening to hear in this Chamber these words of realism on reference to the need for the passage of the pending legislation reported from the Energy and Natural Resources Committee. It is not a pleasantry when I commend the knowledgeable Senator who comes from an area of the country that can join other areas of the country in producing the substantial supplies of oil and coal and agricultural and even forestry products that can go into a general, across-the-board, synthetic liquid fuels program.

The Senator is so right in saying that to delay, of course, simply means possibly to invite defeat. I hate to use those words but they certainly are true, because inextricably our energy strength must be assessed against our military strength. Let us keep ourselves here at home, strong, vibrant, and able, with the ability to take care of ourselves if direct physical confrontation comes again, until as Tennyson said in Locksley Hall, in that famous poem:

Till the war drum throbbed no longer,
And the battle flags were furled;
In the parliament of man, the federation of the world

We hope his prophecy can come true. But we must be realistic in this Senate, in the Congress, and in the Administration. I think the majority of the American people are not only aware, I say to Senator Exon, of this situation, but they are alarmed. They look to all of us in authority at the Federal level of political jurisdiction to act now, not later. As I said earlier today, if we wait we might not have the opportunity of making mistakes, that only effect funding levels of programs we know are tied to our national security.

I appreciate the soundness of the remarks made by our colleague.

Mr. EXON. I thank my friend from West Virginia, Mr. President, very much for those remarks. I did hear his earlier statement. I certainly wish to associate my remarks likewise with those of the senior Senator from West Virginia.

In conclusion, let me say that, while this is probably not a perfect bill and while some amendments might be accepted as a part of the Senate deliberations in this regard, it seems to me that we must be awfully careful that we do not fall back into the trap of fighting the new kid on the block, which happens to be the proposal advanced by the Energy Committee, just because it is going to launder some taxpayers' funds through the Federal bureaucracy, or because the free enterprise system is going to be interfered with once again.

I hope that we can realize and recognize that if we are dependent upon 50 percent of our oil imports today from foreign countries and if it is true that this is likely to go up in the future to something like 64 or 65 percent in 1990, then I say, Mr. President, that without the massive investment of Federal dollars that is necessary, even if it has to be laundered through the bureaucracy and even if we have to help

out, along the line with Government involvement, the free enterprise system—as we have done many times in the past, when we have been in a national crisis—let us not be persuaded with those old arguments that I think do not stand the scrutiny that we need to give as we look to the vital energy crisis of the United States of America.

Mr. President, it seems to me that we have dillydallied too long. Once again, I say, let us move forward as best we can under what I think has been a reasonably well-thought-out program that has been advanced by our Energy Committee.

I thank the Chair and I yield the floor.

Mr. DOMENICI. Mr. President, I rise to commend the distinguished Senator from Nebraska for his analysis and his words of wisdom here this afternoon. I hope the Senators who are in the process of making up their minds with reference to this legislation will heed his words.

I only say to the Senator that if the United States ends up having a serious economic downfall or a significant military loss because of our dependence upon foreign crude oil and we, as its leaders, have left 700 billion barrels or crude oil locked up in the shale ore of America, 300 years' worth of coal that could be converted with our genius to alcohol and ultimately to gasoline, 80 billion tons of oil in the tar sands of this country—if those events occur and that is still locked up there, then I submit the arguments against this bill will pale when it comes to the question of who will bear the responsibility for the failure to act when action was needed.

I commend the Senator.

Mr. JOHNSTON. Mr. President, I join in the commendation of the distinguished Senator from Nebraska who has given what I think is one of the best formulations I have heard of the fix this country is in and what it is going to take to get out of it. I hope he will be on the floor with us to repeat that message. I think it is one that really needs to be heard.

It is better, as the Senator says, to err on the side of being sure that we have the resource developed, rather than being so concerned about other things. We have simply had enough delays.

It was 52 years ago that the Federal Government began its first experimental retort on shale oil—52 years ago. The old Department of Coal Research began 52 years ago. Since then, we have had more starts and more stops and more changes of mind and shifts in the direction of the political winds. It is time now, in 1979, 52 years later, for us to say we have had enough false starts; let us make up our minds now and create a group that has the power and the mandate to develop those resources.

Give them that mandate. Give them a sufficient amount of money in phase 1 to get it done, and do it. But do it now and let us not have another 52 years of not even another 52 weeks of delay.

Mr. President, I think I am at liberty to say that on this synfuels bill, we do not intend to have any votes today. Unless some other Senators want to be heard, I suspect that we shall call for a quorum and yield the floor. I understand the majority leader may want to bring up some other items on which there may be votes, but I think that, by the will of the majority and the minority, as well as Senator Proxmire, there will be no votes on this synfuels bill today.

So, if no one else has a word to say, Mr. President, I suggest the absence of a quorum.

The PRESIDING OFFICER. The clerk will call the roll.

The assistant legislative clerk proceeded to call the roll.

Mr. PROXMIRE. Mr. President, I ask unanimous consent that the order for the quorum call be rescinded.

The PRESIDING OFFICER. Without objection, it is so ordered.

Mr. PROXMIRE. Mr. President, the distinguished Senator from Louisiana and the distinguished Senator from New Mexico has criticized the \$8 billion authorization in the Banking Committee bill. They have also criticized my statement that we intend to raise our authorization. They say our figure is not well thought out and that the figure is still too low.

I would like to briefly discuss why several reasons why our bill would require a lesser authorization than the \$88 billion provided in the Energy Committee bill.

It is true that \$2 billion to \$3 billion might be right for a 50,000-barrel-day plant for the life of a project. The Banking Committee feels that what we should do is to provide for the broadest kind of understanding in the private sector, and not just big plants, but smaller plants, too.

We provide assistance, for example, for a single commercial module in several cases.

For instance, oil shale industry representatives have testified that one module may be sufficient to demonstrate the technological and economic viability of a given process.

So in the case of oil shale, the Banking Committee bill could mean a 10,000 barrel/day module, not a plant made up of five 10,000 barrel/day modules.

Oil from shale is nearly price competitive, as the Senator from Colorado pointed out, and that is where two-thirds of the shale in this country is located. It is nearly competitive with world oil prices now.

Oil from shale is estimated to cost about \$25 a barrel. Assuming the price of world oil will rise faster than the price of oil from shale, one can easily argue that Government price guarantees will result in little or no Government outlays.

Therefore, probably little of the \$3 billion provided by the banking bill would eventually go to shale products.

I might point out to the Senate that the two fundamental synthetic fuel areas are oil shale and coal.

Purchase commitment/price guarantee contracts running more than 7 years would be subject to a one-house congressional veto under the banking bill.

Therefore, most, if not all, such contracts would provide subsidies for 7 years or less.

The \$2 billion to \$3 billion cost figure of the Energy Committee is based on subsidies running for the life of the plant.

Since the Energy Committee appears to believe that synfuel prices will soon become competitive with world oil prices there is no reason to assume such long-standing support will be needed or justified.

That is why we argue that the \$2 billion to \$3 billion cost per project is, in any event, more than is probably going to be needed.

Because loan guarantees are limited to 75 percent of a project's cost we obviously get more mileage out of a loan guarantee than if it were 100 percent. For every \$75 million put in, you get a \$100 million project.

Furthermore, because \$1 appropriated for loan guarantees would permit \$3 in guarantees under the Banking Committee bill, \$1 authorized under this bill would support a \$4 investment. So a \$1 billion coal gasification project would be supported by a \$250 million appropriation under the Banking Committee bill.

If the authorization of the Banking Committee is increased, I would favor an absolute limit on loan guarantees to preserve the preference for purchase commitments.

The energy bill requires a \$1 set-aside for each dollar of contingent liability. The Banking Committee has no such requirement.

Mr. President, I point out to the Senate that a great deal of criticism has been focused on the \$3 billion in the Banking Committee bill and not much has been focused on the \$88 billion in the Energy Committee bill.

I am informed that that \$88 billion was arrived at over lunch, and it is my best understanding that it was arrived at between a prominent Washington lawyer and a member of the administration. As lunches go, I would not be surprised if the lunch had been pretty well lubricated, and as they go into the first martini, this might have been \$20 billion. At the second martini, maybe it went up to \$40 billion. At \$88 billion, the only way you can explain it is by the quality of the martinis in this town—particularly when the vermouth is of low quality and the gin is of high quality. It is clear that these gentlemen were flying high when they moved into \$88 billion.

I do not know of any program that has that big a price tag. What justification have we had for \$88 billion, except that it was arrived at during lunch by a conference of congenial companions, after a typical Washington libation or two? There is no justification for \$88 billion.

We are challenged on the \$3 billion all over the place and I have just given a careful analysis of how that \$3 billion could provide for a great deal of synthetic fuel commercial development. I also have indicated our willingness and our flexibility to provide for some increase, and perhaps a substantial increase.

Mr. President, I hope that, under those circumstances, we can get some kind of justification for going to \$88 billion. As I say, the biggest single vote I can recall at any time for a new program is this one.

There are other ways the funding requirements would be greater for the Energy Committee bill. It provides for Government funding of Government-owned plants and joint ventures, which are not permitted to be built under the Banking Committee bill. By definition, the Government-owned, contractor-operated—the so-called GOCO—and joint venture plants would be in addition to plants that otherwise would be built under either bill. That is in the Energy Committee bill; it is not in the Banking Committee bill. This adds to the expense right off the bat. The fact that these plants would be less efficient than the privately funded plants would add further expense.

Although the Energy Committee says that 8 to 10 plants would be built in the first round, the bill does not require that, and there could be more.

The Synthetic Fuels Corporation is authorized to spend \$35 million annually for administrative expenses. With adjustments for inflation, this expenditure could easily exceed \$1 billion over the life of the program.

Because of the requirement that the second phase begin within 3 years, the second-round duplicative plants will be under construction at the same time as the first-round plants.

Mr. President, the whole purpose of both these bills is to develop information, understanding, and confidence in the private sector, so you have a commercial operation that has been tried, a commercial operation that works, a commercial operation that can get funding, a commercial operation that has had the bugs worked out.

That is why we think it is desirable to proceed with a first phase first, to know what we are doing, before we decide whether we want to go ahead with 10 or 20 or no additional funds. None may be needed. If the first phase works out, as it possibly would, particularly in the area of oil shale, where they are very close to commercialization now, it may be unnecessary to have a second phase funded by the Government.

So, for many reasons, which are detailed in the Banking Committee report, the Energy Committee's procedure is much less efficient—with respect to a second-round duplicative plant under construction at the same time as first phase plants. It is much less efficient and much more costly than a deliberate approach such as embodied in the Banking Committee substitute.

Mr. President, these are some of the many reasons why I believe the Banking Committee substitute, which will soon be before the Senate, is more efficient and less costly than the Energy Committee substitute.

Mr. President, I suggest the absence of a quorum.

The PRESIDING OFFICER. The clerk will call the roll.

The assistant legislative clerk proceeded to call the roll.

Mr. ROBERT C. BYRD. Mr. President, I ask unanimous consent that the order for the quorum call be rescinded.

The PRESIDING OFFICER. Without objection, it is so ordered.

PROCEDURAL PROPOSAL

Mr. ROBERT C. BYRD. Mr. President, I take the floor at this time to express the hope that it might be possible to proceed through the pending business, S. 932, title by title.

The need for that procedure is due to the fact that the bill contains several major titles with steep subject matter—for example, solar bank, energy conservation, synfuels—and different floor managers are required for the different titles.

I raise this possibility today, and I ask the respective cloakrooms to explore it through the hot line, and I invite Senators to respond to the Democratic Policy Committee staff no later than noon tomorrow.

So I give notice in the Record today, to give Senators time to respond, hoping that it might be possible to put together this kind of request. It would allow for an orderly procedure.

I invite the distinguished Senator from Wisconsin, if he will, to give his reaction to it at this time.

Mr. PROXMIRE. I say to my good friend, the Senator from West Virginia, the majority leader, that I favor this. I think it is an orderly way to proceed. If we do that, as I understand it, we will finish with one title.

Mr. ROBERT C. BYRD. Yes.

Mr. PROXMIRE. Then we could concentrate on the other, and all Senators would know exactly what is coming up. They would be prepared to speak, if they wished to do so. They would be prepared to offer amendments. I believe this is an efficient way to proceed.

Mr. ROBERT C. BYRD. It also would accommodate the various managers and the ranking managers on the various titles, would it not?

Mr. PROXMIRE. Yes, indeed. It certainly would. It would be very convenient for Senators. I know of Senators who have a strong interest in the conservation title—for example, the Senator from New Jersey. There are others interested in the solar title, for example, the Senator from Massachusetts. And they would feel unhappy, I think, if in the middle of the debate on synfuels they had an amendment come up on their titles and could not be here to take part in the debate and take part perhaps in the vote.

Mr. ROBERT C. BYRD. Yes.

I have discussed this with Senator Johnston and Senator Jackson and they seem to think that this would be the better approach. So I leave it for Senators to consider. I thought it best to make the suggestion and see if we get some favorable responses.

I suggest the absence of a quorum.

The PRESIDING OFFICER. The clerk will call the roll.

The assistant legislative clerk proceeded to call the roll.

Mr. PROXMIRE. Mr. President, I ask unanimous consent that the order for the quorum call be rescinded.

The PRESIDING OFFICER. Without objection, it is so ordered.

UP AMENDMENT NO. 729

(Subsequently numbered amendment No. 570.)

Mr. PROXMIRE. Mr. President, I understand under the rules the first amendment to be called up is an amendment I was offering in behalf of the Banking Committee; is that correct?

The PRESIDING OFFICER. The Senator is correct.

Mr. PROXMIRE. Mr. President, I ask that that amendment be called up at the present time.

The PRESIDING OFFICER. The Senator will have to send the amendment to the desk.

Mr. PROXMIRE. It is a Banking Committee substitute to title I.

I will call it up a little later if it is not at the desk. I understood it was at the desk.

Mr. DOMENICI. Mr. President, I think it is in the bill.

Mr. PROXMIRE. I think so, too. I think it is in the bill.

The PRESIDING OFFICER. The clerk will report.

The legislative clerk read as follows:

The Senator from Wisconsin (Mr. Proxmire) proposes an unprinted amendment numbered 729.

Mr. PROXMIER. Mr. President, I ask unanimous consent that further reading of the amendment be dispensed with. The Senator from New Mexico alertly pointed out it is in the bill.

The PRESIDING OFFICER. Without objection, it is so ordered.

The amendment is as follows:

In lieu of the language intended to be proposed by the Committee on Energy and Natural Resources to the House amendment to S. 932, line 3, page 59 through line 12, page 147, insert the following:

SHORT TITLE

SECTION 1. This Act may be cited as the "Energy Financing Act of 1979".

TITLE I—DEFENSE PRODUCTION ACT AMENDMENTS

DECLARATION OF POLICY

SEC. 101. The second sentence of section 2 of the Defense Production Act of 1950 (50 U.S.C. App. 2062) is amended by striking out the period at the end thereof and inserting in lieu thereof "or to respond to actions occurring outside of the United States which could result in the termination or reduction of the availability of strategic and critical materials, including petroleum, and which would adversely affect the national defense preparedness which is essential to national security, it is also necessary and appropriate to achieve greater independence in domestic energy supplies."

SYNTHETIC FUELS DEMONSTRATION PROGRAM

SEC. 102. Title III of the Defense Production Act of 1950 (50 U.S.C. App. 2091-2094) is amended by adding at the end thereof the following new section:

"SEC. 305. (a) The President, utilizing the provisions of this section, shall establish a program to determine the commercial viability of synthetic fuels technologies.

"(b) The purpose of this program is—

"(1) to stimulate development of synthetic substitutes for crude oil and conventional natural gas while minimizing Government involvement;

"(2) to determine what additional efforts on the part of the Federal Government are necessary and appropriate to assure development of synthetic fuels production capacity at an optimal pace;

"(3) to expedite design, construction, and operation of synthetic fuels commercial demonstration plants by minimizing Federal Government procedural requirements for selecting projects to receive Federal financial assistance under this section; and

"(4) to test synthetic fuels technologies to determine their potential role in meeting the Nation's energy needs in terms of—

"(A) their commercial viability;

"(B) their environmental impact, including, but not limited to, water consumption, water pollution, and air pollution;

"(C) their health and safety aspects, including, but not limited to, any carcinogenic effect;

"(D) their effect on regional and local agricultural production;

"(E) their social and economic impacts; and

"(F) their thermodynamic balances.

"(c) The President shall—

"(1) invite submission of proposals from interested persons (hereinafter referred to as 'bidders'), requesting Federal assistance in the form of purchase commitments, loan guarantees, or a combination of the two, for the design, construction, and operation of synthetic fuels commercial demonstration projects (hereinafter referred to as 'projects'). The President shall require that each proposal contain such information as necessary for the purposes of preventing selection of more than one project involving the same technology and insuring selection of projects which best serve the purposes of this section as set forth in subsection (b): *Provided*, That the President shall minimize requirements for information to be included in the proposals by directing the Office of Management and Budget to eliminate duplicative reporting forms issued by one or

more agencies so that an applicant will be relieved of multiple filings of similar or identical information;

"(2) not later than one year after the invitation for proposals, select on a competitive basis to the maximum extent practicable up to twelve proposals which are deemed most likely to contribute to the purposes of this section and which each employ a different processing technology; no more than six such proposals employing the same generic feedstock; and

"(3) subject to the provisions of this section, enter into contracts with bidders providing for commitments to purchase synthetic fuels produced by the proposed projects and with public or private financing institutions for guaranteeing loans for design, construction, and operation of the proposed projects.

"(d) Such contracts shall be subject to the following conditions:

"(1) the proposed project must be located in the United States, including the several States, the District of Columbia, the Commonwealth of Puerto Rico, and any other territory or possession of the United States, but no project may be owned or operated by the United States or any department or agency thereof;

"(2) no contract shall require or permit advance payments;

"(3) loan guarantees may be employed only if the President determines that the purposes set forth in subsection (b) could not be achieved through purchase commitment contracts alone;

"(4) all contracts must be entered into before October 1, 1981;

"(5) no contract may commit the Federal Government to purchases beyond the seventh year of synthetic fuels production from a project, unless both Houses of Congress have been notified in writing of such proposed contract and thirty days of continuous session of Congress have expired following the date on which such notice was transmitted to the Congress and neither House of Congress has adopted, within such thirty-day period, a resolution, described in subsection (k), disapproving such proposed contract;

"(6) any purchase commitment contract shall provide that the President retains the right to refuse delivery of the synthetic fuels involved and to pay the person involved an amount equal to the amount by which the price for such synthetic fuels as specified in the contract involved exceeds the market price, as determined by the Secretary of Energy, for such synthetic fuels on the delivery date specified in such contract;

"(7) with respect to any person, including any other person who is substantially controlled by such person (as determined by the Secretary of Energy), the President may not award contracts for commitment to purchase more than fifty thousand barrels per day equivalent of synthetic fuels, or make loan guarantees for design, construction, and operation of a plant designed to produce over fifty thousand barrels per day equivalent of synthetic fuels;

"(8) any purchase commitment contract shall commit the Government to purchase fixed amounts of fuels at fixed prices adjusted by a formula that may take into account inflation, world oil prices or such other prices as the Secretary deems relevant, except that project costs may not be considered as a factor;

"(9) Federal loan guarantees shall not exceed 75 per centum of a project's estimated costs at the making of the contract;

"(10) the President shall establish such terms and conditions for loan guarantees under this section as necessary to implement the purposes of this section and insure the prompt repayment of loans;

"(11) the President may not enter into any contract providing a Federal loan guarantee of an amount in excess of \$500,000,000 unless both Houses of Congress have been notified in writing of such proposed contract and thirty days of continuous session of Congress have expired following the date on which such notice was transmitted to the Congress and both Houses of Congress have not adopted, within such thirty-day period, resolution, described in subsection (k), disapproving such proposed contract;

"(12) guarantees may be made only to the extent appropriated funds are available. For the purposes of this section, \$3 of guarantee authority shall be available for every \$1 appropriated for this purpose. Appropriated funds shall remain available until termination of all guarantees; and

"(13) the amount of purchase commitments shall not exceed \$3,000,000,000 subject to approval in an appropriation Act.

For the purpose of clause (13) only the excess of the price per unit in commitments issued over the market price shall be charged to any appropriation.

"(e) The procurement power granted to the President by this section shall include the power to transport and store and have processed and refined any products procured under this section.

"(f) Each Federal officer and agency having authority to issue any permit for, or to otherwise approve or authorize, the construction or operation of a project selected under this section or for construction or operation of any facility for production or distribution of energy or for exploration or development of Federal land in connection with energy production shall—

"(1) in accordance with Executive Order 12119, expedite all actions necessary for the issuance of such permit, approval, or authorization, and

"(2) take final action thereon not later than twelve months after the date application for such permit, approval, or authorization is made. After taking any such action, such officer or agency shall publish notification thereof in the Federal Register.

"(g) Notwithstanding any other provision of law, liquid fuels acquired pursuant to the provisions of this section which, in the judgment of the President, are excess to the needs of programs under this section, shall be transferred to the Strategic Petroleum Reserve, when the President deems such action to be in the public interest.

"(h) The President shall submit a report to the Congress within one hundred and eighty days after the enactment of this section setting forth a comprehensive plan to implement the program described in this section. In preparing such a comprehensive plan, the President shall consult with the heads of the Department of Energy, the Environmental Protection Agency, the Department of Housing and Urban Development, the Department of the Interior, the Department of Labor, the Department of Agriculture, and the Department of the Treasury. The plan shall include, but not be limited to—

"(1) regulations required to carry out the purposes of this section;

"(2) a list of Federal agencies, governmental entities, and other persons who will be consulted or used to implement the program by this section;

"(3) a plan for the study and monitoring of the health effects of such facilities on workers and other persons, including, but not limited to, any carcinogenic effect; and

"(4) the methods and procedures to insure that the projects will be no larger than necessary to demonstrate the commercial viability of the technologies.

"(i) The President shall submit annually a detailed report to the Congress concerning the actions taken or not taken by the President under this section during the preceding fiscal year including, but not limited to—

"(1) a discussion of the status of each project financed under this section including progress made in the development of such projects, and the expected or actual production from each project, including byproduct production therefrom, and the distributions of such products and byproducts;

"(2) a detailed statement of the costs of the program established by this section;

"(3) data concerning the environmental, social, and economic impacts of each such project;

"(4) the administrative and other costs incurred by the Federal agencies in carrying out this program;

"(5) recommendations as to the appropriate level of further Government involvement in commercialization of synthetic fuels technologies; and

"(6) such other data as may be helpful in keeping the Congress and the public fully and currently informed about the program authorized by this section.

"(j) The reports required by subsection (i) of this section shall be a part of the annual reports required by section 657 of the Department of Energy Organization Act, except that the matters required to be reported by this section shall be clearly set out and identified in such annual reports.

"(k)(1) The resolution disapproving proposed contracts under this section shall read as follows after the resolving clause: "That the _____ does not favor the taking effect of the contract terms transmitted to Congress by the President on _____, the first blank space therein being filled with the name of the resolving House and the second blank space therein being filled with the day and year.

"(2) Upon introduction, the resolution shall be referred immediately to the Committee on Banking, Housing, and Urban Affairs of the Senate and the Committee on Banking, Finance and Urban Affairs of the House.

"(3) (A) If the committee to which a resolution of disapproval has been referred has not reported it at the end of seven calendar days after its introduction, it is in order to move either to discharge the committee from further consideration of the resolution or to discharge the committee from further consideration of any other resolution of disapproval which has been referred to the committee.

"(B) A motion to discharge may be made only by an individual favoring the resolution, is highly privileged (except that it may not be made after the committee has reported a resolution of disapproval), and the debate thereon shall be limited to not more than one hour, to be divided equally between those favoring and those opposing the resolution. An amendment to the motion is not in order, and it is not in order to move to reconsider the vote by which the motion is agreed to or disagreed to.

"(C) If the motion to discharge is agreed to or disagreed to, the motion may not be renewed, nor may another motion to discharge the committee be made with respect to any other resolution of disapproval.

"(4) (A) When the committee has reported, or has been discharged from further consideration of, a resolution of disapproval, it is at any time thereafter in order (even though a previous motion to the same effect has been disagreed to) to move to proceed to the consideration of the resolution. The motion is highly privileged and is not debatable. An amendment to the motion is not in order, and it is not in order to move to reconsider the vote by which the motion is agreed to or disagreed to.

"(B) Debate on the resolution of disapproval shall be limited to not more than ten hours, which shall be divided equally between those favoring and those opposing the resolution. A motion further to limit debate is not debatable. An amendment to, or motion to recommit, the resolution is not in order, and it is not in order to move to reconsider the vote by which the resolution is agreed to or disagreed to.

"(5) (A) Motions to postpone, made with respect to the discharge from committee or the consideration of a resolution of disapproval, and motions to proceed to the consideration of other business, shall be decided without debate.

"(B) Appeals from the decisions of the Chair relating to the application of the rules of the House of Representatives or the Senate, as the case may be, to the procedure relating to any resolution of disapproval shall be decided without debate.

"(1) Nothing in this section may be construed to authorize any program of fuel allocation or rationing."

PRODUCTION OF HEAVY OILS AND TAR SANDS

SEC. 103. Title III of the Defense Production Act of 1950 (50 U.S.C. App. 2091-2094) is amended by adding at the end thereof the following new section:

"Sec. 306. (a) In order to expand production of petroleum products from heavy oils and tar sands, the President is authorized to enter into contracts with persons proposing to extract such heavy oils and tar sands from the ground. Such contracts shall provide to such persons Federal Government guarantees of a market price for such heavy oils and tar sands determined as follows:

"(1) the amount of the guaranteed market price shall be initially set at and never be lower than 90 per centum of the world oil price for petroleum of comparable grade on the date of enactment of this Act, as determined by the President;

"(2) the amount of the guaranteed market price shall be increased annually to equal the lesser of—

"(A) 90 per centum of the new world price of oil, as determined by the President, or

"(B) 90 per centum of the world price of oil on the date of enactment of this Act, as determined in subparagraph (1) above, adjusted annually for inflation using the gross national product deflator.

"(b) For the purposes of this section, the terms 'heavy oils' and 'tar sands' include fuels if the hydrocarbon content thereof has a gravity of twenty degrees or less (API). For purposes of applying the preceding sentence, the President may substitute a higher gravity rating (API) than twenty degrees in any case in which he determines that the application of the higher gravity rating would further the purposes of this section.

"(c) (1) Price guarantees shall not be available under this section for heavy oils or tar sands produced outside of the United States, including the several

States, the District of Columbia, the Commonwealth of Puerto Rico, and any other territory or possession of the United States.

"(2) No person, including any person substantially controlled by such person as determined by the President, shall be eligible to receive a guarantee of a market price under this section with respect to more than fifty thousand barrels per day oil equivalent.

"(3) No guarantee issued under this section shall extend beyond 2000."

GENERAL PROVISIONS

SEC. 104. (a) Section 702 of the Defense Production Act of 1950 (50 U.S.C. App. 2152) is amended by adding at the end thereof the following:

"(g) The words 'synthetic fuels' mean any product derived from coal (including anthracite, lignite, and peat) or oil shale which is suitable for substitution for petroleum or natural gas."

(b) Section 711(a) of the Defense Production Act of 1950 (50 U.S.C. App. 2161(a)) is amended—

(1) by striking out "There" and inserting in lieu thereof "Except for the purposes of section 305, there"; and

(2) by inserting after the first sentence the following new sentence: "For the purposes of section 305, there are hereby authorized to be appropriated without fiscal year limitation not to exceed \$3,000,000,000."

(c) The first sentence of section 717(a) of the Defense Production Act of 1950 (50 U.S.C. App. 2166(a)) is amended by striking out "September 30, 1979" and inserting in lieu thereof "September 30, 1981".

Mr. PROXMIRE. Mr. President, I urge support of the Banking Committee's synthetic fuels program. The amendment I have offered would substitute the synfuels title reported by the Banking Committee for the synfuels title reported by the Energy Committee.

As you know, Mr. President, the Banking Committee and the Energy Committee share joint jurisdiction over the bill before us today. To simplify floor consideration of the two quite different committee versions, Majority Leader Byrd, Chairman Jackson, and I have agreed to a procedure by which the Senate will choose between the two synthetic fuels proposals before either is amended further.

This history of the bill before us is unique. S. 932 was originally reported by the Senate Banking Committee and passed by the Senate as a simple extension of the Defense Production Act. However, the House broadened the purpose of this bill by adding an amendment to the Defense Production Act creating a synthetic fuels program. Rather than proceed to conference on this new proposal which had not received previous Senate consideration, the House-passed bill was referred jointly to Banking and Energy.

I want to emphasize right at the start that the two different committee proposals do not represent a squabble over jurisdiction. We have had no trouble at all between Senator Jackson and myself and other members of the committee, on jurisdiction. Both committees have clear jurisdictional interests in this matter. The Banking Committee's involvement results from its jurisdiction over financial aid to commerce and industry, financial institutions, credit policy, capital markets, and the Defense Production Act of 1950. The Energy Committee is involved, of course, because the provisions of the House-passed bill have important energy policy implications.

It is important that the Senate recognize that there are a number of important issues which are addressed by the legislation before us. Certainly, energy supplies are an important concern. And synthetic fuels may offer a partial solution to our future energy needs. But, the

size and pace of the synfuels program, and the proper mix of technologies, cannot be considered in an energy vacuum. We must also consider the impact of such a program on the economy—on inflation, on capital markets, and on government intervention in the marketplace.

It would be a shame if we ignored these considerations because we believe energy resources must be exploited at any cost.

I believe both the Banking and Energy Committees recognize the importance of developing new energy resources. This is certainly not the issue today. I would like to take a few minutes to discuss what this debate and what the upcoming vote are about.

First of all, and this may be the most important statement I make, the vote to decide whether we will work with the Banking Committee substitute or the Energy Committee substitute, is not a vote for or against synthetic fuels. The Banking Committee bill is most definitely not an antisynfuels bill. Our bill is prosynfuels. It is a very ambitious bill. It is, for instance, much more ambitious than any synfuels bill previously passed by the Senate. It would provide for construction of up to 12 commercial size synfuels plants using coal or shale as a feedstock. It would provide us, and more importantly, potential synfuels producers, with the information on costs and technological readiness that they need to proceed with further development.

As I say, that is the most important part of the synfuels situation, no matter whose amendment is adopted. We must obtain the information, the understanding, the knowhow, the confidence provided to the private sector so they can move ahead.

So, if we are not faced with a choice between a prosynfuels bill and an antisynfuels bill, what is the choice we will be making shortly? When we decide whether we are going to work with the Energy Committee's synfuel bill or the Banking Committee's synfuel bill, what will we be deciding?

First of all, we will be deciding the general approach we want to take to synfuels development. It is highly unlikely that either bill will be approved in its current form. Whichever bill is approved, many amendments will be offered, some of which will undoubtedly be accepted. Specific details are going to be changed. For instance, the \$3 billion authorization contained in the Banking Committee substitute will undoubtedly be adjusted. We are also studying language dealing with the question of completion guarantees, which were suggested by the Committee for Economic Development and other witnesses. Technical, clarifying, and perfecting amendments will be offered. We may want to clarify the description of the types of plants to be built, to make certain that people understand we are talking about commercial size plants and modules. Some people appear to believe that our bill describes an R. & D. program. That was clearly not the committee's intent, and we want to correct any possible misinterpretation.

We believe that R. & D., pilot and demonstration plants are properly handled as they are now, in the DOE authorization process. Such projects do not require the same types of treatment as do the commercial plants that would be supported under provisions of S. 932.

(Mr. Heflin assumed the chair.)

Mr. ARMSTRONG. Mr. President, will the Senator yield for a question?

Mr. PROXMIRE. Yes, I am delighted to yield to my friend from Colorado.

Mr. ARMSTRONG. Let me make sure I understand the point that the Senator is making. If I understand you, you are saying that the Banking Committee's intention was to provide for limited Federal subsidies for as many as 12 commercial size plants or commercial size modules using coal or shale as a feedstock. Is that correct?

Mr. PROXMIRE. That's entirely correct. It was the committee's intent that these be plants which can show the true commercial, technological, and environmental characteristics of these conversion processes. This purpose would not be achieved with construction of pilot or demonstration plants.

Mr. ARMSTRONG. So, it is the committee's intent that this program would provide for testing a diversity of technologies in one-of-a-kind plants, using purchase commitments, price guarantees, and loan guarantees as appropriate. Is that correct?

Mr. PROXMIRE. Yes, it is. We would provide for construction of up to six coal plants and up to six shale plants, provided that a sufficient number of technologies or processes were ready for commercial plant construction.

Mr. ARMSTRONG. How would projects be selected for Federal support?

Mr. PROXMIRE. Well, the President or his designee would evaluate the proposal, the readiness of the process in question for commercialization, the relative merits of other proposals using the same process, and the range and amount of Federal support requested. A preference is expressed for purchase commitments and price supports over loan guarantees. All other things being equal, a proposal requesting loan guarantees only would be preferred to a proposal utilizing the same process requesting both purchase commitments and loan guarantees.

Mr. ARMSTRONG. It is intended that the one-of-a-kind limitation be strictly applied?

Mr. PROXMIRE. No, not at all. Our intention is to avoid having exactly the same thing demonstrated more than once. As we say in the committee report, we anticipate that projects using different proprietary processes, though having similar descriptions, would be considered separate processes for purposes of this limitation. This provision was aimed only at one thing—to avoid duplicative construction of identical plants. The committee believed this was necessary to avoid the temptation of getting into a crash program.

Mr. ARMSTRONG. What about the case where a coal gasification project requests loan guarantees only and a different type of plant, such as a coal liquefaction plant, requests purchase commitments only? Would the liquefaction plant receive preference?

Mr. PROXMIRE. No, they would not be competing against each other. Because of the requirement for one-of-a-kind plants, projects would only be competing against like projects. Since most gasification projects would require only loan guarantees, the preference expressed for purchase commitments would not be relevant. Clearly, a gasification plant requesting both types of subsidy would be less preferable than one requesting loan guarantees only.

Mr. ARMSTRONG. Is it the committee's intent that the preference expressed for purchase commitments would not preclude Federal support for gasification plants, which would probably need loan guarantees but not purchase or price guarantees?

Mr. PROXMIRE. It is clearly the committee's intent that regulated gas companies not be prevented from participating in gasification projects. I think everyone recognizes that the synthetic fuels project nearest to being ready for commercial construction is a coal gasification project sponsored by a consortium of regulated companies. The sponsors of this project have invested a significant amount of their own funds in design and arranging for permits. The project would be one of few synfuels processes which could make a contribution to our energy needs over the relatively near term. We believe that it and the gasification projects should be given a fair chance to receive the needed assistance from the Government.

Mr. ARMSTRONG. At the appropriate time, would the Senator object to an amendment, if were necessary, to clarify the committee's intention that the preference for purchase commitments should not preclude support of gasification projects requiring loan guarantees?

Mr. PROXMIRE. Certainly not, if it were a matter of potential confusion about our intent. We clearly intended that the preference for purchase commitments over loan guarantees would apply in those cases where a potential producer might plausibly request either or both. The committee intended that its bill support a diversity of technologies, including shale conversion, coal liquefaction, and coal gasification, and I would hope that the bill approved by the Senate reflects that understanding.

Mr. ARMSTRONG. I thank the Senator for this opportunity to clarify matters.

Mr. PROXMIRE. This very useful colloquy illustrates the point I was just making. When the Senate takes its choice between the two bills, it will be choosing the general approach it wants to follow toward synfuel development, not the specific details.

So, we should consider the major philosophical differences between the two bills. What are the general characteristics that the Senate will have to choose between when it makes its choice?

The most important differences between the two bills are the different role provided for the Federal Government and the initial commitment made to an all-out program.

The Banking Committee's bill establishes a limited role for the Federal Government. The Government is authorized to provide limited financial guarantees and to evaluate the progress made in achieving the results of the program and the need for further Federal incentives. That the limit of the Federal role.

The Energy Committee would have the Government involved in synfuels right up to its eyeballs. Let us consider a few of the provisions in the Energy Committee substitute.

First, it creates a large, unaccountable, and uncontrollable Synthetic Fuels Corporation with the single purpose of promoting and developing synfuels. The Corporation itself is given an annual budget of up to \$35 million—plus inflationary increases—for administrative expenses. That means it could hire somewhere between 500 and 1,000

people. Why will it need so many employees? Certainly not just to act like a bank, as the Energy Committee says it will. It will need those people because it will act like a new Government agency, with lawyers, budget officers, interagency coordinating committees, and all the other trappings of the bureaucracy.

The Corporation is made totally unaccountable. It is given initial authority to spend \$20 billion, and is almost automatically given an additional \$88 billion whenever it spends that first \$20 billion.

The Banking Committee unanimously rejected the proposal to create a new Federal corporation. Instead, the committee's bill assigns to the President limited authority to select recipients of financial assistance and evaluate progress in achieving the goal of synthetic fuels development. Under existing provisions of the Defense Production Act, the President may delegate this authority to any existing or new Federal agency, but he is specifically prohibited from creating a new corporate entity.

There were many reasons why the committee rejected the proposal to create a new Federal corporation to manage the synthetic fuels program. Some of the committee's more important objections are discussed below.

First. Creating a Federal corporation for the sole purpose of managing a synthetic fuels program is inconsistent with the committee's intent to minimize Federal interference with and involvement in synthetic fuels development efforts;

Second. Creating the Corporation is inconsistent with the phased-development approach approved by the committee;

Third. Initial and irreversible authorization of \$88 billion for Federal financial assistance is excessive and further promotes a high degree of Federal interference in the program; and

Fourth. The time needed to create a new Federal corporation would be likely to delay initiation of the first phase of commercial testing.

The level of irreversible financial commitment to the Corporation and the range of subsidies it could offer would dictate that it plays a substantial role in managerial decisions better left to the private firms developing synthetic fuels projects. The Corporation would have the authority to provide direct financing to private ventures and to construct Government-owned plants using processes not considered by industry to be ready for commercialization.

Additionally, under certain circumstances, the Corporation would be empowered to take over the ownership and operation of insolvent or failing projects. These factors guarantee substantial diseconomies in the synthetic fuels program and eliminate the possibility of a true test of the commercial and technological promise of synfuels processes. In rejecting this approach, the Banking Committee approved a plan which places the predominant technological and cost risk on the private developers, thus promoting development only of those processes considered by industry to have true commercial promise.

Prof. Robert S. Pindyck of MIT argued that open-ended Federal commitments could lead to excessive Federal support of unpromising technologies:

Private industry is much better able than any government bureaucracy to stop the development of a particular project if it later turns out that it is not as

promising as it once appeared. By letting the government commit us to one or more particular technologies, we create a set of political forces which make the termination of an undesirable project difficult, and which make increased subsidies to make the project "successful" very likely.

The committee also rejects arguments by the supporters of the Synthetic Fuels Corporation who state that the Corporation will necessarily speed the development of synthetic fuels. Creation of the Corporation could actually hinder synthetic fuels development. To the extent that the Corporation would create momentum for construction of duplicative pioneer plants, all of the cost and technological penalties associated with a crash program would come into play. The Corporation is also intended to expedite achievement of a production goal which could not be achieved under any circumstances.

In addition, the time taken to organize the new Corporation would unnecessarily delay the inception of the commercial testing and demonstration program. Roderick Hills, testifying for the Committee for Economic Development, spoke to this point:

If you have an agency that doesn't work, it has always seemed to me you would do a better job of trying to make that agency work than creating another agency . . . In our judgment the needed results can be accomplished by expanding Presidential authority, and then the President can put that organization wherever he may wish.

I might say that, for this initial stage, hiring one or two bankers and having them operate at the Department of Energy, or the Department of Treasury, or under an executive order, makes a lot more sense to me than spending the next two years trying to create a new agency just after we've spent a couple of years trying to make the Department of Energy work. It takes time to organize a new agency. It takes time to run an old agency. It takes time for a perfectly good agency to have somebody come in and try to take control over it. We can't afford that kind of time if we're going to have the information that Dr. Rivlin and we suggest is needed to make decisions about synthetic fuel.

In the Energy Committee bill, the Corporation is given the authority to require whatever financial records it desires from the contractors. We do not have any way of knowing what the Administrator of the Corporation would require. He might not ask for any records of any sort, and just spend the Corporation's funds blindly. Or, he might place such an onerous reporting and disclosure burden on the projects that they would be diverted from project development by the need to comply with voluminous reporting requirements. We do not know what it would involve. We just tell the Corporation that anything it wants is fine with us.

The Synfuels Corporation would be required to push synfuels development at a rate faster than the optimum pace of development. The Energy Committee bill requires the Corporation to submit its comprehensive plan for the second phase within 3 years. It can submit the plan as soon as it wants to, but it must do so within 3 years. Then, if the plan is not rejected by either House within 60 days the \$68 billion is automatically authorized.

(Mr. Robert C. Byrd assumed the chair).

Mr. PROXMIRE. Of course, the chances that either House would reject this plan are minimal. The chances that it would even be put to a vote are slight.

If there was determined opposition, it would be very hard for those who oppose the legislation to secure action on it. As I said earlier today, the Parliamentarian has indicated to me that he knows of no

way that a Senator could get this out of the Energy Committee and there is no anti-filibuster language in here. So how we could make this veto provision effective is not very clear. It is clear to me, however, that it provides \$88 billion, and that is the ball game.

Obviously, the distinguished Senator from Washington and the distinguished Senator from Louisiana are very enthusiastic about the Energy Committee's substitute and about the Synthetic Fuels Corporation. It is likely that one of these Senators—or perhaps the distinguished Senator from New Mexico, an equally devoted supporter of the Corporation—would be chairman of the Energy Committee at the time the plan is submitted, and I suspect they would not want to refer the comprehensive plan to the Senate floor for debate. It would be likely to die in committee. Even if the Senate happened to reject the plan, we would get into a war of attrition, because the Corporation is ordered by the Energy Committee substitute to revise its plan and present it, again and again if necessary, within 90 days after it is rejected.

Mr. ARMSTRONG. Will the Senator yield for a question?

Mr. PROXMIRE. I would be delighted to yield.

Mr. ARMSTRONG. Is the Senator saying that the substitute offered by the Energy Committee would require no congressional approval to authorize the additional \$68 billion?

Mr. PROXMIRE. That is correct. No congressional approval would be required. The \$68 billion is automatically authorized 60 days after the report is submitted unless the report is rejected by one House of Congress.

Mr. ARMSTRONG. Is there any provision in the Energy Committee substitute which would require the committee having jurisdiction to refer a resolution of disapproval to the floor for debate?

(Mr. Burdick assumed the chair.)

Mr. PROXMIRE. I have found no such provision. And, as I said, the Corporation is ordered by the Energy Committee substitute to keep coming back at the Congress with revised plans, time after time, within 90 days after any rejection. And, once Congress approves a plan, the Corporation can modify it any way it wishes without any congressional review. So, it is a war of attrition which the Corporation would win sooner or later. It is inconceivable that the second stage would not eventually be approved.

Mr. ARMSTRONG. I thank the Senator for yielding.

Mr. PROXMIRE. So, nobody should deceive themselves that the Energy Committee bill has a \$20 billion pricetag. It will cost \$88 billion, just like the original administration proposal. There is no chance that the comprehensive plan would be rejected.

And, what will be the status of the projects at the time the plan is presented for congressional review?

Let me just take a minute before I get into that, Mr. President, by pointing out that once we set up this corporation, once we have authorized them to obligate and to incur commitments of \$88 billion, appropriation is automatic. I have served on the Appropriations Committee now for about 18 years and in those 18 years I have never seen a commitment made by a legally constituted entity of the Congress or the Government which has not been honored. I would vote for honoring

it even though I vigorously oppose. A Senator would have to vote to honor. What are you going to do, Mr. President, with a business that has gone out and spent its money and made commitments with the understanding or the assurance of Federal officials that they are going to come through with a billion or a billion-and-a-half dollars? Of course we are going to honor it. Once we have approved this bill, as I say, there goes \$88 billion.

Anybody who wonders why this Government of ours has exploded the way it has, why it has gotten so big, so intrusive so dominant in our society and economy can see this bill as a superb example.

At the time we get this plan will we have any more information about these technologies than we do now? Will we be in a position to evaluate the cost and technological promise of these technologies on the basis of any operating experience?

The answer is no we will not. Because of the complexity of these processes, it is going to take a great deal of time for the project sponsors to prepare their proposals. Then, it is going to take more time for the Government to negotiate with the sponsors of the proposals. There is a good chance that, within the 3-year deadline set for delivery of the comprehensive plan, some of the projects will not have even broken ground for their plants. Certainly none will be operating.

Since this is the case, why are we in such a hurry to push on to phase 2? For that matter, if we insist on releasing the second \$68 billion in funding before we know anything about the technologies that we do not know today, why wait as long as 3 years to do so?

Of course, the answer is clear. The Energy Committee bill, despite protestations to the contrary, does not provide a phased approach to synfuels development. It is, in essence, the original administration crash program with a few changed numbers. There is an illusion of phased development, but not the reality.

Phasing is a key element of the Banking Committee bill and I would like to discuss why we rejected the crash program and provide for phasing.

The committee concludes that many of the limitations on synfuels development are beyond the control of the Federal Government. Enactment of a law which declares that synfuels technologies are ready for commercialization will not alter that many synfuels technologies are in a relatively primitive and untested state of development. Nor can Congress change the cost penalties associated with a crash program, the water limitations in the prime resource areas, and the significant environmental and socioeconomic deterioration which would accompany an effort to increase greatly synfuels production capacity over the short term.

One major problem relates to the scaling up to commercial size of processes which have been applied only on a small scale. This issue was highlighted at the committee's hearings by Max Eliason, chairman of the Rocky Mountain Oil and Gas Association's Committee on Oil Shale:

The risk of loss is particularly hard to assess in the case of pioneer plants using sophisticated technology not previously demonstrated at the commercial level. While individual developers may be able to project favorable production costs and project economics, these projections are subject to scale-up risks, possible delays and design changes, potential cost overruns, and other uncertainties which are common with first-of-a-kind plants.

Another problem involves the ability of commercial plants to sustain production at rated capacity. Even at the pilot or demonstration stage, most plants have operated for only brief periods. The question remains whether large synfuels projects will be able to operate on a regular basis without prolonged periods of "downtime" for maintenance. The ability to sustain production at rated capacity will have a significant effect on the cost of the program, its economic viability, and its long-term potential for replacing imported oil.

Successful operation of 30 to 50 full-size plants would be necessary in order to attain the ambitious goals set by the Moorhead bill and the administration proposals. However, immediately successful operation of this many first-generation facilities is highly unlikely. In a report for the Senate Budget Committee, Pace Consultants and Engineers addressed this point:

The probability is high for pioneer plants that they will not work as planned for some time, or until additional investments are made to correct the problems.

Perhaps the most significant delays and cost increases would result from bottlenecks in supply of critical components for synfuels plants. Pace engineers concluded that:

The first few plants committed would contract for most of the available U.S. manufacturing capacity for key items such as valves, pumps, compressors and high pressure vessels. As additional plants reach the procurement stage, equipment suppliers will quote longer and longer delivery times. Longer delivery times also require higher price contingencies to cover unknown increases in supplier costs. Longer delivery times are death to large capital projects, because time is money. We estimate that almost half the total per barrel cost of synthetic fuels is simply the carrying cost of the capital investment. Project owners will therefore be willing to bid up the prices for crucial equipment in order to save time. A single week's delay may increase costs by millions of dollars.

Because of the potential for hyperinflation, we believe that costs could increase dramatically in a crash program. Building 20 plants could cost considerably more than twice as much as building ten plants. Any savings in design costs by building duplicate plants would be wiped out by the cost increases. Plant construction costs during an all-out crash program are likely to increase by 50 percent or more.

The Rand study, prepared for DOE, agreed with this conclusion:

Bottlenecks in the supply of components and engineering services for plant construction . . . would lead to sharply increased costs or major delays, or both, for plants under construction.

Another serious concern is the effect that these projects could have on local areas.

Because of the relatively sparse population and undeveloped nature of the oil shale areas of Colorado and Utah, there would also be many other potentially serious localized effects of synfuels development. Governor Lamm expressed particular concern about the added cost of synfuels plants that would be borne by State and local governments. He noted that "a single 50,000 barrel per day surface retorting plant and associated underground mine would be one of the largest mining operations in the United States and would, itself, be the largest industrial complex in the State of Colorado." He noted further that the President's original synfuels program called for construction of eight such facilities by 1990.

Because of a quirk of geological fate, virtually all of the high-quality shale in this country is located in a relatively small area of

northwestern Colorado and eastern Utah. This area is among the least developed and most sparsely populated regions of the continental United States. Governor Lamm pointed out that the oil shale-bearing area of Colorado has a present population of only 14,500 people. He estimated that construction of a 400,000 barrel per day capacity shale industry would add 70,000 to 75,000 people to the population of this area. He estimated that State and local spending requirements would include \$100 million for new roads and at least \$400 million "in community services alone, exclusive of housing." Included among the problems anticipated by too-rapid expansion of the shale industry were:

Lack of front-end money to meet community needs before the tax base is in place; rapidly increasing demand for community services; immediate housing shortage as workers arrive to build the plants or mines; and increases in social problems associated with unplanned growth.

Governor Lamm argued that the State of Colorado was willing to accept oil shale development, but that simultaneous development of numerous full-size commercial facilities would place an unacceptable burden on the financial resources of the State and local governments.

One additional local and regional socioeconomic impact aroused some concern—the "boom town" phenomenon, and its related effects on local budgets, quality of life, and worker productivity.

The Department of Energy addressed this problem in a written response for the record:

As with other resource related growth, new synthetic fuels liquids plants would create local and regional impacts. The magnitude of these impacts depends upon the technology itself as well as the size, location, and other pre-existing conditions of the host community. Because of the uncertainties involved, it is extremely difficult to estimate the specific costs of community expansion from any type of energy facility.

The Department of Energy concluded that the local impacts of a new energy facility would be "dependent upon the number of immigrants for whom public facilities, services and housing have to be provided." As stated earlier, the total population of the oil-shale resource areas of western Colorado is approximately 14,000, and the State of Colorado has estimated that oil shale development could add 70,000 to 75,000 people to this population base.

DOE recognized the potential impact in sparsely populated areas of the Western United States. Its statement said:

A potentially high impact community, typically located in rural isolated areas in the Western United States is unlikely to have the indigenous labor pool necessary to fill the required jobs. The community would experience rapid and substantial immigration with characteristic boom-town effects, including social disruptions, shortfalls of public facilities, services, housing and inflation.

Governor Lamm of Colorado argued that the explosive population growth associated with synfuels plant development would affect more than the local and State budgets and the quality of life in local communities. He stated that:

The issue of explosive, unplanned growth not only affects the people living in the community, but the productivity of the community itself. Chaotic community conditions will thwart an expeditious synthetic fuels program simply because companies will not be able to attract or keep quality workers. Eventually, communities will not look favorably on participating in synthetic fuels development.

Enough studies have been done to demonstrate that this productivity decline occurs during the construction as well as the operating phase, a situation that can also contribute to the large cost overruns mentioned earlier. We therefore believe that the costs of the development could escalate dramatically if the essential community planning and services are not in place. For example, in the construction of the Jim Bridger Power Generating Facility in Rock Springs, Wyoming, the company suffered greatly from productivity problems due to social disruption. Some observers have estimated that the impact of this productivity decline nearly doubled the originally estimated cost of the plant.

A national synthetic fuels program cannot treat such compelling social issues as an afterthought. We must incorporate successful community and housing programs, pacing the development accordingly, if we are to make this national effort work.

Because of these limitations the committee rejects proposals calling for an all-out commercialization effort. The committee believes that a crash program would be less efficient and more costly than a more deliberate program, such as that embodied in the committee proposal, of testing a number of technologies in minimum-size commercial plants. More importantly, though, the Banking Committee's approach is likely to maximize the long-term potential for the synthetic fuels industry. A crash program would be guaranteed to fail, because it would attempt to do too much too soon. Even if the stated goals were only partially attempted the Government could be left with costly and inefficient "white elephants" that would be less efficient, more environmentally offensive, and more expensive to operate than future plants. Additionally, if the program failed to accomplish its goals, either because of delays or because the plants failed to meet operating expectations, public faith in the synthetic fuels program and in Government energy policy, as a whole, would be seriously shaken.

Roderick Hills, representing the Committee for Economic Development, stated at the committee's July hearings, shortly after the House approved the Moorhead bill and the administration announced its crash program:

We have been with this idea, Mr. Chairman, for almost two years, and frankly in the last few weeks we have a feeling we're about to be loved to death by an approach that will literally kill what we have set out to propose to this Congress . . . It may be more dangerous to do too much in the area of synthetic fuel financing than to do too little.

Similarly, Mel Horwitch, of the Harvard Business School energy project testified that:

The historical track record in synthetic fuels—of grandiose schemes and attractive technological and economic promises, followed by disappointment and dramatically rising cost estimates—should give us pause at this time when we are presented with the most ambitious proposals for synthetic fuels ever encountered in the United States.

Dr. Horwitch spoke of the disaffection that would follow the predictable failure of a crash synfuels program:

All large-scale, public-private technological endeavors can experience dramatic life cycles which often end in failure . . . A massive synthetic fuels program would be visible and under public scrutiny; it is too controversial a subject to be otherwise. It will be battled on every front by a host of parties that disagree with this strategy. It will therefore be very difficult for the managers of such a program to keep it on track and shielded from criticism, much of which would probably be justified. There is the strong likelihood that a massive synthetic fuels program would follow the same pathological pattern as the SST or nuclear power. It is this kind of failing life cycle which we need to avoid in order to maintain synthetic fuels as a possible long-term option.

(Mr. Metzenbaum assumed the chair.)

Mr. PROXMIRE. Nearly every witness who testified before the Banking Committee recommended that synthetic fuels legislation should incorporate several principles. The two most frequently mentioned principles were:

That initial synthetic fuels efforts should be confined to a limited number of one-of-a-kind plants and should be followed, if feasible, by wider commercialization; and

That Government interference with the operations of the synthetic fuels program should be minimized.

I might note that, in the 3 full days of hearings we held, we heard from witnesses representing synfuels producers, environmental groups, the administration, business groups, the Harvard Business School energy team, and other academic groups. Except for the administration witnesses, no witness who testified before the Banking Committee thought that the Energy Security Corporation was either feasible or desirable.

Instead, most of the witnesses argued that the technological environmental, cost, and capacity problems which I just mentioned are reasons why near-term development efforts should concentrate on constructing and demonstrating a limited number of different synfuels technologies on a limited commercial scale.

By avoiding duplication of first-generation plants, this strategy would minimize the initial expense to the Government. In addition, by minimizing the potential investment in nonproductive technologies, this approach would minimize the risk of failure.

The team of witnesses from the Harvard Business School recommended a near-term approach to test synthetic fuels technologies with little if any emphasis on production of oil. The Honorable Alice Rivlin, Director of the Congressional Budget Office, also supported this approach:

A certain production threshold is necessary to develop the critical technical, environmental, and economic information needed to choose the most efficient technologies and resources that should be developed over the long run. Although this threshold is difficult to estimate, it most probably falls between 200,000 and 400,000 barrels of oil equivalent per day. This represents four to eight commercial-size plants of alternative technologies and resources. A strong case can be made to set a program at this level on the grounds that the United States will eventually have to change to alternative fuels and that such a base of knowledge will help in choosing those resources and technologies that will allow an efficient transition.

The Honorable John H. Gibbons, Director of the Office of Technology Assessment, agreed with this recommendation:

I am sympathetic with Dr. Rivlin's position on this matter. It seems to me it is perhaps time, given the fundamental national security issues we face in the next decade, to move ahead toward some full-scale pioneer plants, but being careful to make this an information gathering, an experience gathering time, very much in parallel with what major industries do with major new plants, rather than precommitting to very, very large investments on production.

Roderick Hills, representing the Committee for Economic Development, made a similar recommendation:

Our observation is that it is useful to create approximately 10 plants. Dr. Rivlin suggested 8 plants producing about 400,000 barrels of oil (per day); we suggest 10 plants producing about 500,000 barrels of oil (per day). There is no essential difference between the positions.

It is the informed guess of this group of people that an intelligent, competitively directed, guaranteed price program will produce about 10 commercial scale synthetic fuel plants in the near future, and that is about what the country needs today. To do more than that would only distort the information that we are trying to get.

The committee took special note of testimony to the effect that a relatively modest first phase which would concentrate on gathering the information needed for a decision on full-scale commercialization could actually result in more rapid development of the synthetic fuels industry than programs which appear to make a more ambitious commitment. Gov. Richard Lamm testified to this possibility:

No one really knows what any of the available oil shale technologies will do or what they will cost in \$/Bbl to go commercial until modules are actually built and operated and we collect investment and operating cost data to permit making some good economic predictions. The numbers you have seen up to now are only preliminary projections.

By the phased approach we can actually get more production sooner with fewer mistakes. Some of the technologies currently being touted may not pass the module test from an environmental or economic standpoint. We could start construction of several commercial plants immediately and with confidence after a successful module demonstration.

Accordingly, the bill approved by the Banking Committee contains several provisions intended to insure that the first phase of development will test a wide variety of technologies and focus on gathering information. These provisions include:

A limitation on the number of projects which may receive Federal support in the initial phase. The bill stipulates that the government may support no more than six projects using coal as a feedstock and six projects using shale as a feedstock. This provision will guarantee that the synthetic fuels development effort will not attempt to force the pace of plant construction beyond the capacity of the construction industry or beyond the state of synfuels technological readiness;

A stipulation that no more than one project using any given technology may be assisted. This provision is intended not only to insure testing of a wide variety of technologies but also to minimize the inefficiencies involved in duplicating construction of plants to test the same process; and

A requirement that synfuels projects funded in the initial phase be no larger than the minimum size necessary to demonstrate the commercial prospects of the process and yield answers to technological and environmental questions.

The committee believes that these requirements are necessary in order to guarantee proper concentration on testing and demonstrating of various technologies during the first phase. Failure to include any of these limitations would leave open the possibility that the synthetic fuels project administrator would attempt to implement an immediate program of fullscale commercialization, which the committee believes would be unwise.

Because of the uncertainties inherent in an ambitious and risky commercial test and demonstration program, the committee did not set deadlines for initiating subsequent efforts to construct second-generation plants, nor did the committee attempt to define the scope or degree of Federal involvement in any such efforts.

Many witnesses argued that advance provision for a substantial Federal role in a second phase of commercialization would be inappropriate because the need for such involvement should not be prejudged. In fact, the committee anticipates that the need for future Federal assistance will decline as a natural result of increased knowledge about the technological and commercial feasibility of the synfuels production processes and about the price of world oil.

While the technological and cost uncertainties involved in constructing pioneer plants necessitate Government financing guarantees, these uncertainties will be greatly reduced once several plants have been constructed and operated. Once this has happened, private industry investment in synfuels plants will entail much less risk, and private lenders should be more willing to advance necessary funds.

The Pace report, previously discussed, supported this view. It concluded that:

Beyond the pioneer plants, government involvement can start to diminish, owing to a lessening in technological risk and economic uncertainty. Standard or replicated plants can be built, based on pioneer commercial plant designs, although modifications and improvements will be ongoing. Capital access assistance by the government may still be necessary for these plants, but at no risk to the government. Production incentives at this point, owing to a better definition of actual economics, can be tailored to encourage production, as necessary.

Harry Pforzheimer, representing the Paraho oil shale project, agreed that Government assistance could diminish after operational characteristics were demonstrated.

The Standard Oil Co. of Ohio, one of the partners in the Paraho project, also agreed that Federal support of already demonstrated technologies could be expected to diminish:

Sohio believes that following the successful completion of full-scale testing of any synthetic technology there should be a time during which the private companies could assume the risk of commercializing such technology without the use or risk of the taxpayers' money. If it becomes apparent that private industry is not doing adequate work along those lines, Congress may then wish to consider incentives to further commercial synfuel development.

The Committee for Economic Development was even more insistent that Federal support for subsequent commercialization efforts should diminish. Testifying for CED, Roderick Hills stated:

Let me reemphasize that any government program should be limited to providing incentives for a limited capacity of synthetic fuels from first-of-a-kind production plants. The incentives should not be open-ended. Rather, once the first increment of capacity has been brought on stream and the economic and environmental factors have been established, further expansion should be determined by cost-competitive decisions of the market place—unsubsidized by the government.

The possibility for this diminished Federal role would be precluded if the synthetic fuels legislation enacted by Congress:

- Provided for a crash program of synthetic fuels plant construction;
- Required phased development but defined or provided for a substantial Federal role in any second phase of commercialization; or
- Created a special Government entity, such as the Energy Security Corporation, whose sole purpose would be to provide Federal assistance to and to monitor synthetic fuels projects.

For this reason, the committee has not attempted to define the timing or degree of Federal involvement in the second phase. Nor has the

committee created a new pseudo-government corporate entity which would impose Federal direction of development of a synthetic fuels industry.

The bill approved by the committee requires the President to report regularly to the Congress on the progress achieved in meeting the goals of the synfuels program. This report format could provide the basis for recommendations to the Congress on subsequent synthetic fuels commercialization efforts. Such follow-in efforts could involve a substantial role for the Federal Government if circumstances warranted such a role, but the committee believes that legislation enacted before the inception of the commercial testing phase should not prejudice the level of support needed in subsequent commercialization efforts.

I have listened to the descriptions by the distinguished Senator from Louisiana (Mr. Johnson) of what the Energy Committee bill involves on several occasions, including right here during the debate on the Byrd amendment to the recent Interior Appropriations bill. Sometimes I must confess I am tempted to ask him if he is not really endorsing the Banking Committee bill.

It has been said that the Energy Committee bill is significantly scaled back from the President's original proposal. I do not think it is.

It provides the same level of funding as the administration proposal. The original Carter synfuels proposal called for \$88 billion, to be made available in \$22 billion increments every 18 months. The Energy Committee bill also provides \$88 billion; \$20 billion is provided immediately, and the corporation is required to file a comprehensive plan within 3 years. After this plan is filed, the other \$68 billion is automatically made available unless the plan is rejected by Congress. There is no requirement for congressional approval.

It provides for the Energy Security Corporation, renamed the Synthetic Fuels Corporation, with the same irreversible funding commitment, lack of accountability, and charter to forcefeed the synfuels industry which the administration requested.

It provides the same broad range of subsidies requested by Carter and rejected by the Banking Committee: Direct loans, Federal-private joint ventures, and Government-constructed plants. These incentives were opposed by the Banking Committee on the grounds that they involving increased risk to the Government, negate the principle of testing the economic characteristics of the processes, and diminish the reliance on market forces.

It contains no limit on the number of plants in the first phase. The only first-phase limit is the \$20 billion in spending authority; and, in essence, the subsequent \$68 billion installment can be made available as soon as the first \$20 billion is spent.

The bill assume substantial Government involvement in the second phase, through provision of \$68 billion in second phase spending authority.

In short, the only major difference between the Carter proposal and the Energy Committee bill is that the Carter proposal set its production goal for 1990. The Energy Committee bill establishes the same synfuel production goal (1.5 million barrels per day) for 1995.

It has been argued that the Energy Committee bill provides for a limited first phase of synfuels development, with a limited number of

one-of-a-kind plants. If this is the case, then the argument between the committees is truly confined to the existence of the Synthetic Fuels Corporation and the overall authorization for phase 2, because the Banking Committee bill also provides for this type of program. In fact, if the Energy Committee bill were truly as described, the Banking Committee could be accused of being reckless. After all, we provide for up to 12 plants, and it is said that the Energy Committee bill provides for only 8 to 10.

However, I do not think that the Energy Committee bill really provides for such a modest program. I have looked and looked, and I cannot find a single word in the Energy Committee substitute bill or report about one-of-a-kind plants. It is just not there.

And, of course, there is nothing in the bill which requires that we have any first-phase test results before we move on to the second phase. In fact, as I said a few moments ago, it would be impossible to have any test results before the \$68 billion is released. The Banking Committee concluded, as I said earlier, that if we waited before moving on to the second phase, we might be able to reduce the level of Federal involvement in this phase.

As I have said, this reflects the fundamental difference between the two committees' approaches. The Banking Committee substitute puts the emphasis on private sector initiative, while the Energy Committee substitute requires substantial Government involvement.

Mr. President, if we have learned anything in the last 15 years, it is that we do not solve problems by saying, "Let's show that we have the will and the guts to spend a lot of money." We tried that approach of Federal forcefeeding on our cities. We went from \$2 billion a year in 1957 to \$85 billion a year today. Some of that increase in spending is good, but I think an increase of fortyfold is hard to justify in that limited period of time. It is interesting that a study by Dr. Richard Nathan, of the Brookings Institution, has shown that after spending this huge amount, this enormous increase, the cities are worse off now than they were before we spent the money.

He shows that poverty is now worse in the cities. He shows that on the basis of age of housing, an excellent objective criterion, the cities are worse off. He shows that on the basis of availability of jobs, the cities are worse off. Here we are spending not twice, not 10 times, we have increased spending fortyfold. That is the result we have gotten in our cities.

Take education. Mr. President, there are few perfect correlations in human relationships. There are some mechanical correlations in physics and higher mathematics, but you very seldom find them in human relationships. We have massively increased Federal assistance for education, especially since 1964. Mr. President, every single year that we have increased spending, scholastic aptitude scores have gone down. One of the few almost perfect correlations you can find is in the correlation between the amount of Federal spending for education and the negative performance of our kids on scholastic aptitude scores. The more we spend, the dumber they get.

Again, I am not saying we should not spend money in these areas. Of course we should. But it is a matter of how intelligently, how thoughtfully, how perceptively we spend the money and especially

how we engage the energy and the enthusiasm of the local people. That is why this approach, the Banking Committee approach of trying to inspire action locally, action by the private sector, is a superior approach.

Mr. President, what would we get for our \$88 billion in energy? Would the synthetic fuels industry develop in a healthy way so that it could make a contribution to our energy needs?

Well, the Energy Committee bill provides the Federal Government can build up to three plants of its own. The Government would not have the fun of operating the plants, of course, just of paying for them. The Government could build more than three if the proposal for additional Government-constructed plants is not rejected by the Congress. The Banking Committee bill, by contrast, prohibits Government construction projects.

Such a program is inconsistent with the committee's overall approach toward synfuels development, and would be inherently inefficient for several reasons.

First, by definition, it would guarantee the construction of projects using processes considered by industry to be unready for commercial demonstration. Thus, the risk of cost increases, delays and operating inefficiency, or of outright project failure, would be significantly higher.

Second, Government construction would transfer the cost and technological risk from the private ventures to the Government. This acceptance of risk is fundamentally inconsistent with the purpose of the committee's bill, which is to place primary reliance on market forces.

Third, this acceptance of risk by the Government would reduce the incentives for efficient operation which would otherwise prevail. The Honorable Alice Rivlin, Director of the Congressional Budget Office, testified to this point:

If the Federal Government itself were to build these plants, it would then absorb all the risks—that is, the technological and cost risks, as well as the risk associated with any future changes in OPEC prices. This would give contractors less incentive to build the most cost-effective plants, since no private sector money would be at risk. Overall efficiency would, therefore, be reduced.

Finally, the GOCO's would not yield the answers to cost and financial questions sought in the first phase of synfuels development. A report prepared for the Senate Budget Committee by ICF, Inc., discussed this problem:

The President proposes to allow the ESC to initiate GOCO's as a last resort. GOCO's contradict every one of the guidelines just cited from the MIT work. The demonstration would be removed from the normal workings of the private sector; project managers (most likely working on a cost plus fixed fee basis) would not be subject to serious market or cost reduction pressures, and full federal financing would provide no information about the likely financing cost for a commercial project.

The ICF report went on to point out that GOCO plants "would be unlikely to provoke private sector investment." In fact, ICF concluded, "Government participation has even discouraged private activity in some energy areas."

Inasmuch as the purpose of the program approved by the Banking Committee is to promote private sector participation in synthetic fuels and to yield the most accurate cost information about a number

of synthetic fuels production processes, the committee believes that authorization of GOCO plants would be counterproductive to the long-term goal of creating a healthy synthetic fuels industry, would be likely to diminish private corporate interest in synthetic fuels projects, and would promote a vastly increased Federal role in subsequent stages of synfuels commercialization.

Mr. President, why did the Energy Committee include GOCO's, and why were they recently listed as one of the three key features of the Energy Committee substitute? We have heard that GOCO's are needed as a club over industry, to make sure that they do not suppress synfuels technologies; if the big oil companies will not produce synfuels, there is the threat that the Government will.

Additionally, we have heard that GOCO's can act as a competitive force, helping to hold the price of synfuels down, and giving us a better picture of what these technologies should cost.

I believe that the Energy Committee is wrong in its devotion to GOCO plants. I believe they misunderstand what has prevented the development of synfuels, and I think they also misunderstand the characteristics of GOCO plants.

First of all, the reason synfuels have not developed is simple. Current projections show that it will cost more to produce synfuels than the price at which they could be sold. Synfuels could not be produced and sold at a profit at today's oil prices. I do not think any company or industry can be accused of suppressing development of a technology merely because they do not invest their money in what looks like a sure losing proposition.

A second factor which also acted to prevent development has been the complicated question of uncertainty: Uncertainty about technological risk, uncertainty about future world oil prices and the effect of oil price increases on domestic inflation, and uncertainty about future Federal regulatory policy. These plants are going to be very expensive. Each full-size plant is going to cost well over a billion dollars. That is a lot of money to invest in a process which might or might not work and which might or might not be permitted to operate by the Federal Government.

So, we have to ask whether providing for GOCO plants responds to the real reason why synfuels have not been developed.

(Mr. Burdick assumed the chair.)

Mr. ARMSTRONG. Will the Senator yield for a question?

Mr. PROXMIER. I am delighted to yield for a question.

Mr. ARMSTRONG. Would the Senator not agree that providing for GOCO's might actually diminish the willingness of industry to participate in developing synfuels? After all, if a construction company has the choice of building a billion-dollar plant on a cost-plus contract for the Synthetic Fuels Corporation or building a plant for a private firm, does it not seem reasonable that it would choose the Government work?

Mr. PROXMIER. The Senator is so right. He could not be more right. Who would not do that? Cost plus? Perfect; it is a businessman's dream. You cannot miss on a cost-plus basis. That has been the trouble with our military procurement.

Mr. ARMSTRONG. If the Senator will yield further, it appears to me that with GOCO's, we get away from having the producer make hard

choices about which technology shows the most promise, and we get into the world of slick brochures and salesmen. Would the Senator not agree that if the Government agrees to take all the risk, we might have all kinds of harebrained schemes coming before the Corporation? I emphasize that, under the Energy Committee substitute, the Government can only build a synfuels plant of its own if no private firm is interested in doing it itself. It seems to me that with the Energy Committee approach, we are asking for all sorts of wild and crazy ideas to be funded.

Mr. PROXMIRE. I could not agree more. The Banking Committee bill puts most of the risk squarely where it belongs—on the shoulders of the producers. The producers have said that they are willing to accept that risk if they can also get the rewards.

If the Government agrees to shoulder all the risk, then this discipline just evaporates. If the Government is going to bear the loss, then there is no reason not to go ahead and ask them to build your plant.

Mr. ARMSTRONG. I thank the Senator for his comments. While I am on my feet, I should like to compliment the distinguished Senator for a very meaningful analysis of the comparison between these two bills. I certainly think he has made it clear why the Banking Committee version of this legislation is vastly to be preferred.

Mr. PROXMIRE. I say to my good friend from Colorado that I deeply appreciate that. I had an opportunity to hear his speech this morning. Not only was I very impressed by that speech as one of the best speeches I have heard in a long, long time, but a number of other Senators, Democratic Senators, told me how impressed they were about it. They heard it on the squawk box and they had no idea what a strong case we had against the Energy Committee bill, which the Senator from Colorado made so ably this morning.

Mr. President, the final point I would like to make with regard to GOCO plants is that such facilities are highly unlikely to be models of efficiency. Even if it were true that synfuel technologies had been suppressed by industry, I seriously question whether GOCO plants are the way to bring competitive pressure to bear. The testimony of the Congressional Budget Office before the Banking Committee argues that exactly the opposite is true, that GOCO plants are likely to be highly inefficient.

The Energy Committee bill would also allow the Government to take over failing projects, to forgo loan payments if a project were in trouble, and to otherwise indemnify the producers against risk. Uncle Sam is going to play Uncle Sucker.

The Energy Committee substitute would also allow joint ventures between Government and industry. I cannot resist pointing out that these joint ventures could involve R. & D. projects. The Energy Committee report states, on page 172, that these joint ventures can be "small scale demonstration operations." It also states that:

In some instances, full scale facilities would not be practical because of technical and economic risks.

Members of the Energy Committee have attempted to minimize the Banking Committee substitute by saying that it is only an R. & D. bill. We, of course, utterly reject this characterization, and point out that

the Energy Committee substitute, insofar as it provides for joint ventures, does appear to be the R. & D. bill that they want to ridicule. R. & D. projects clearly fall within the jurisdiction of DOE, and are totally out of character with S. 932.

In summation, these two substitutes represent a sharp difference in philosophy about the proper role of the Government and industry in energy policy. The Energy Committee believes that we need a massive, unaccountable new bureaucracy to manage the synfuels program. The Energy Committee believes that we have to make an initial irreversible commitment of \$88 billion to synfuels. The Energy Committee says that we have to keep the Government involved in synfuels development right up to the hilt.

Mr. SCHMITT. Will the Senator yield?

Mr. PROXMIRE. I am happy to yield to my friend from New Mexico.

Mr. SCHMITT. I just wanted to alert my two distinguished colleagues, whose discussion today has been so useful, I think, to understanding the difference between these two bills, that some have claimed that both of the Senators, and I guess I am lumped in the same basket, have claimed that they are against synthetic fuel development, and all of this is just a red herring to prevent that kind of development.

I do not know what they would claim the Senator is for, but they would claim he is against synthetic fuel development. I know he is not. But how does the Senator stand up to that kind of thing?

Mr. PROXMIRE. I am delighted the Senator brings that up. I think it is a point.

The very first statement I made here today was that the most significant remark I could make was that I am for synthetic fuels development. The Banking Committee bill is for synthetic fuels development. We favor spending billions of dollars for synthetic fuels development.

We favor spending more for the synthetic fuels development than for solar energy, more than many other areas.

I indicated I would suggest personally a higher commitment than the \$3 billion here because some people feel that would not be enough to provide the commercial plants that are necessary. But, certainly, not the \$88 billion.

The argument we are making is not that synthetic fuels are wrong. They are great. We need them. It would not provide as much as some other disciplines might for the energy we need. But they can be helpful.

We are arguing that the best way we can test out synthetic fuels and get the information we need for the private sector is to do it in a limited, orderly way, with one of a kind plants.

So we do not have a crash program. It is going to make this industry very expensive, inflate costs greatly, and will provide a tremendous burden on the taxpayer.

Mr. SCHMITT. The Senator is saying that by taking a phased approach in which technology and economics of particular categories are examined through a series of demonstration plants, with the financial assistance of the Government, at least loan guarantees on the part of the Government, that we will realize a higher level of synthetic fuels production at a lower cost sooner than we will if we provide through the Energy Security Corporation as proposed by the Energy Com-

mittee a more massive crash program aimed at production using existing technologies and economics.

Mr. PROXMIRE. The Senator is correct.

I would like to say, not demonstration plants, but demonstration of the technology in commercial plants, so the bugs are worked out for a very large amount of production, up to 50,000 barrels a day.

The Banking Committee bill provides for commercial-sized plants. We will then know what all the commercial problems are and the financial problems, so we can win the confidence of the financial community to finance further development, as well as the confidence of the people who will run and operate it.

As pointed out, I think the Senator from New Mexico was the first person to call this to my attention. There are a limited number of professionals in this field, 45,000 I think is the number. If we go the Energy Committee route, they will need, by some calculations, 24,000 additional personnel.

Where are they going to come from? It means we cannot train them overnight, or in 6 months or 1 year. It takes time to build that up.

For that reason, it would seem we want to be very careful and very sure what we do is as useful as possible, and not move in in a crash way which will sabotage the effort.

Mr. SCHMITT. The usual source of people for crash programs are people working for somebody else doing other useful tasks. I think one could sit down and identify at least the categories of individuals that would be hired in a massive crash program of this kind.

One has to ask, What would be the effect of the loss of this personnel to the other industries where they come from, whether a powerplant industry, or other aspects of the mining industry besides coal and maybe oil shale, and other aspects of agriculture, if that happens to be one of the synthetic fuel areas designated for crash production.

Mr. PROXMIRE. There are two other problems that are predicted. One is inflation of salaries and pay which will mean higher prices. Much more serious will be that they will greatly reduce the efficiency of the other operations, and they will not have the personnel to provide the kind of energy production we should have in a crash program. That is going to eliminate much efficiency which we have at the present time in our energy operations.

Mr. SCHMITT. I think the Senator is correct.

The important bottom line is that those of us in this large, broadly based group of people in this country that are not convinced a crash synthetic fuels program is the way to go at this time, we are, nonetheless, advocating a steady, efficient and rapid increase in the availability of synthetic fuels to our society.

The problem is that we feel we have to do that in a much more logical and measured way than is proposed by this \$88 billion program that is the core of the Energy Committee bill.

I think the Senator from Wisconsin and the Senator from Colorado did an excellent job today beginning this debate in a reasonable way, making it absolutely clear—and I hope it has been made clear—we all do favor acceleration of synthetic fuels technology, the acceleration and identification of economic bottlenecks, the removal of those bottlenecks through the kind of program envisioned by the Senator's bill and

by other research and development efforts being funded in other ways.

I thank the Senator for yielding.

Mr. PROXMIRE. I thank the Senator from New Mexico.

I commend him on the tremendous expertise he has in this area. He is one of the very few scientists we have in the Congress of the United States. I guess he is the only, that I know at least, expert geologist who really understands the technology of this far better than not only we do, but than our staffs do.

It is a great comfort to have a man with this remarkable background and understanding so enthusiastically and positively working on our side.

Mr. President, I have just a few more remarks.

The Banking Committee has tried to design a program which addresses the problems of markets and financing. We emphasize private initiative. We keep the Government out of the energy business. We believe that synfuels will develop if we give them a fair chance, and our bill has the Government step back and give them that chance.

However, although the Banking Committee believes that synfuels are important to our energy future, we believe it is important to keep things in perspective. Synthetic fuels represent a mid- to long-term prospect, and they are likely to be quite expensive.

While we are considering synthetic fuels, we should not completely forget other energy options that show more near-term promise, such as solar and conservation processes. In the coming days, we will also be debating sections of S. 932 which establish incentives for these processes, and we should keep in mind that we cannot use synthetic money to fund these projects, as the distinguished Senator from New Mexico pointed out so well in our press conference. The Banking Committee approved a balanced and responsible energy package, with funds for synthetic fuels, solar, alcohol fuels, and conservation.

I have been persuaded it may be necessary to increase funding from that level provided. That will be taken care of later.

But let us briefly consider relevant costs and benefits. The Energy Committee provided \$88 billion for synthetic fuels, as the President requested.

If the production goal is met, synfuels will provide about 3 percent of our energy needs by 1995. Solar, on the other hand, could, by some estimates, provide up to 20 percent of our energy needs by 2000, at a much lower cost per barrel of oil replaced.

In response to the Banking Committee's action, the Energy Committee did go on and include other types of energy programs. But what did they provide? With solar, for instance, their response was particularly begrudging. They cut our 5-year authorization for the Solar Bank back to 3 years—as compared to a 15-year lifetime for the Synfuels Corporation—and they provided a total of only \$540 million, which out to about one-half of 1 percent of the amount set aside for synfuels.

And the distinguished Senator from Louisiana complained in his additional views that “this legislation provides excessive subsidies to individuals,” and that “the subsidies are unreasonable by any standard.”

So, although the debate on the first substitute is not about solar or conservation initiatives, we should keep in mind that we may use up

our energy venture capital on synfuels if we provide the \$88 billion, and have little or nothing left over for the more promising technologies. Then we would indeed have put all of our eggs in the synfuels basket, and we would be in serious trouble if this option met with total or partial failure.

I would like to call the attention of the Senate to the diverse group that rejects the need for an Synthetic Fuels Corporation to manage a massive Federal commitment to synthetic fuels. Some supporters of the Energy Committee substitute have argued that the only opponents of their bill are "Big Oil" and the unnamed "No-Growthers." This is simply not true. A diverse coalition of business, scientific, and environmental groups support the general approach embodied in the Banking Committee substitute.

The U.S. Chamber of Commerce opposes the creation of the Corporation, as does the American Petroleum Institute and the National Coal Association. The Energy Coalition, which is made up of more than 50 national and local environmental groups, supports our bill. The National Federation of Independent Business, made up of more than 500,000 small businessmen, overwhelmingly rejected the creation of the Synfuels Corporation. The Western Regional Council, made up of mining and electric utility companies in the Western United States, where most synfuel resources are located, oppose the Corporation, as does Richard Lamm, Governor of Colorado, the State with the greatest concentration of synfuels resources. The Committee for Economic Development has called for a program of limited subsidies, consistent with the Banking Committee bill. The Federation of American Scientists has rejected the Synthetic Fuel Corporation and synfuels subsidies of the level proposed by the Energy Committee.

This group was termed a "strange bedfellows" coalition by the Washington Post, and that is what it is. Nowhere else are you likely to find big business, small business, and environmentalists in such total agreement as they are on the question of an \$88 billion commitment to a Synthetic Fuels Corporation. These groups do not regard the Banking Committee's bill as perfect. However, they do recognize that the Banking Committee bill represents the better approach to synfuels development and to the approach which is more likely to pay off in synfuels production over the long term.

Therefore, I urge every Member of the Senate to read the committee reports on S. 932, and to study the issue. I urge them to consider the near-term limits on synfuel development, the type of subsidies that are needed, and the need for funds for other near-term energy options. When they have considered these matters I am sure the Members will recognize that the Banking Committee's bill comes closer to providing the degree and types of Federal support required for development of a healthy synfuels industry.

Mr. President, I thank my friends from Colorado and New Mexico for their very helpful participation in this discussion.

I suggest the absence of a quorum.

The PRESIDING OFFICER. The clerk will call the roll.

The legislative clerk proceeded to call the roll.

Mr. CRANSTON. Mr. President, I ask unanimous consent that the order for the quorum call be rescinded.

The PRESIDING OFFICER. Without objection, it is so ordered.

Mr. CRANSTON. Mr. President, I rise in support of the Banking Committee substitute amendment for title I of the Energy Committee version of S. 932, the synfuels section of the Defense Production Act extension.

I share the view of nearly everyone who has spoken in this debate that it is very important that we immediately begin to decrease our dependence on imported oil and to deal with our long-range energy problems.

The reasons for relieving the Nation from foreign oil dependence—which makes us vulnerable to blackmail on price, supply, and political issues by foreign nations, particularly Arab nations—have been stated many times.

Virtually every vital public issue facing our Nation is in some way negatively impacted by our foreign oil dependence: Our national security interests; our fight against inflation; our efforts to achieve a balanced budget and a healthy economy; and our need for continuing supplies of energy to run our economy.

It is certainly clear to me that we need a cohesive, progressive and multifaceted energy program that will relieve us of our dependence on imported oil as promptly as sensible relief is available.

Hopefully, the outcome of this session of Congress will be to complete the task begun last year of providing us with the main legislative ingredients of that program.

I certainly will be supporting legislation to achieve the elements of such an energy program.

It seems to me that our energy program must necessarily embody vigorous efforts to achieve better energy efficiency, eliminating much of the extravagant waste of precious energy resources that up to now we have taken for granted.

The program must encourage and support the development and commercialization of renewable energy resources—because ultimately our dependence on fossil fuels, foreign or domestic, will have to be eliminated before our fossil fuels are depleted.

It is important to remember that if we simply replace imported oil with domestic oil, we will use up our own diminishing supply of oil faster than we are already doing.

Finally, our energy program will need to take a balanced approach to the development of new energy sources and be diverse.

Too often, we have settled for the quick fix and put all our eggs in a single basket.

Once, cheap petroleum was thought to be the single answer to our energy needs.

When the nuclear age began, fission energy was supposed to be the answer to our needs for abundant, inexpensive energy.

But this resource has proved to involve unsolved technological problems, environmental risks, and to cost far more than was ever predicted.

There are no quick fix solutions to our long-term energy problems.

There is no single source that can provide all the energy we need, within the time frame that is necessary, at a price which our economy can reasonably afford.

And there is a serious danger from overcommitment to any single source.

There is the risk that too much investment, too early in a single technological alternative or group of alternatives, will dry up the capital, divert the support resources of the economy, and restructure parts of our society in such a way that we may be denied the ability to proceed with other options.

We cannot afford to reject out of hand the number of competing and sometimes very promising technologies embraced under the generic term "synfuels."

But we cannot afford to put so many of our resources into development and commercialization of synfuels that we deny ourselves the ability to proceed with other options.

Such a strategy runs several very real risks, Mr. President, not the least of which is that we may spend most of our available capital on a series of technologies that will produce no energy in the short run, and may not be able in the long run to produce energy at economic or environmental costs which we are prepared to pay.

This is not a case in which one can measure the degree of one's commitment to energy development, even synfuels development, by the amount of funding one is willing to support in this bill.

In fact, Mr. President, several witnesses in the Banking Committee hearings made the point that too sizable a Federal commitment too early might be counterproductive and hinder the development of the most competitive, cost-effective, technologically feasible, environmentally sensitive synthetic fuels.

There are two important issues raised by the competing approaches to a synfuels program before us, and on both of these issues I prefer the Banking Committee bill.

The first is the question of whether we need a public synfuels corporation—an additional bureaucracy—at a time when the public is crying for less bureaucracy, not more.

The second is the question of what is a reasonable level of synfuels energy development.

And on that question, there is a large body of opinion from all sides of this debate that modest Federal subsidy, rather than a gangbusters approach, is far more likely to produce more synthetic fuels technologies at lower costs, with less environmental damage, with less expenditure of taxpayer dollars at a lower rate of inflation, than the \$88 billion subsidy that the Energy Committee bill would commit us to.

In both respects, I believe the Banking Committee bill is preferable. I urge the Senate to accept the Banking Committee substitute.

(Mr. Tsongas assumed the chair.)

Mr. TOWER. Mr. President, there are several things Congress could do to reduce U.S. oil import dependence and stimulate domestic fuel production more effectively and efficiently than any of the synthetic fuels commercialization bills now before us. The policy changes I have in mind would reduce the cost of Government, relieve the increasingly burdensome taxload being carried by most Americans, and move us quickly and surely toward alternative fuels and true energy security.

First, we should move quickly to decontrol completely the price of domestic crude oil and natural gas, and without the imposition of the politically inspired and misnamed windfall oil profits tax. The removal of price controls on domestic oil and gas would do more than anything else to stimulate development of synthetic fuels as well as the production of crude oil and natural gas. Second, we should redress the imbalance which now exists in the environmental laws and regulations promulgated during the last decade. Finally, we should move more aggressively to cut the tangles of redtape and delays which now stifle private investment and innovation.

I am somewhat encouraged that Congress in some limited ways is now beginning to move in the direction of economic deregulation and a more balanced and rational approach to the need for environmental protection. That process of policy evolution will take time, however, and the need for production of synthetic fuels is urgent. I have concluded, therefore, that there is a need for the Federal Government to provide some additional, limited incentives to the development of a commercial-scale synthetic fuels industry.

Had the Federal Government pursued a more reasonable course in energy policy and environmental protection in the past, extraordinary inducements of the sort we are now discussing would not be needed. Plainly, however, that has not been the case. Excessive regulatory delays, frequent Government policy shifts, unnecessarily stringent environmental regulations, groundless environmental lawsuits, and the artificial economic distortions of energy price controls have made most energy companies understandably unwilling to take the necessary financial risks.

So, if we are to achieve the critically important goal of expedited, commercial scale production of synthetic fuels, it is necessary, in my view, that the Federal Government provide some additional assistance. A crash development program of the kind first proposed by President Carter, however, is clearly unwise.

Past mismanagement of our energy resources by Federal regulators has clearly demonstrated that Government is not a viable alternative to a free energy market. As certain as it is that we will need synthetic fuels in the future, it is even more certain that if we leave it to Government to produce them, we will never have them. In this connection, some manner of risk splitting by Government and industry may be warranted to encourage synthetic fuels development, but the Federal preemption of this nascent industry—as proposed by the President—is clearly unwarranted.

I believe, instead, that a prudent, cost-effective approach is one that entails a minimum of Government involvement and maximum reliance on private industry. There should be no direct Government involvement in the ownership or operation of synthetic fuels plants.

Certainly, there can be no justification whatsoever for the creation of any new Government agency or Government-sponsored corporation to administer a synthetic fuels assistance program.

I believe that the general approach embodied in title I of the bill reported by the Banking Committee, on which I serve, is the most responsible approach to synthetic fuels development. I think the Banking Committee bill can be improved somewhat, but it is, in my estima-

tion, far superior to the more heavily funded and Government-oriented development program established by the Energy Committee bill. I support the Banking Committee bill because I believe it will enable us to substantially accelerate synthetic fuels development at the least cost to the Government and with a minimum of Government interference.

The development of a viable synthetic fuels industry is essential to utilize most effectively our abundant energy resources such as coal and oil shale. That can best be done, however, not by massive Government-owned and Government-operated energy facilities, but through the efforts of private industry—by eliminating the layers of Government overregulation and uncertainty which now stifle private investment in these risky capital intensive projects.

In the meantime, I urge my colleagues to provide the necessary additional financial incentives authorized in title I of the Banking Committee version of S. 932.

Mr. STONE. Mr. President, I want to express my strong support for the legislation which the Senate Energy Committee has reported to establish an Energy Security Corporation, S. 932. Our country faces the specter of serious energy supply shortages over the next several decades. It is now absolutely clear that, even with new incentives for more domestic oil and natural gas production and more coal and nuclear, we must now begin to develop a strong synthetic fuel program. The pending legislation puts the country on the right track in stimulating synthetic fuel development.

On June 19 of this year, I joined Senator Domenici and others in introducing S. 1377, a bill which is the parent bill of the legislation now before the Senate. I am encouraged that the Senate Energy Committee, working with the administration has moved this and other similar proposals along the legislative process to the point that the Senate is now near passage of a major synthetic fuel program.

I have long been interested in a full-scale approach to the commercial use of the vast resources of oil shale, coal, biomass, urban waste products, geothermal energy, and similar sources of energy. I have been as frustrated as my colleagues with the Congress inability to translate its desire for energy self-sufficiency into constructive use of the billions of barrels of oil equivalent that now lies underneath America's surface.

A proper partnership between Government and the free enterprise system can solve this Nation's energy problems, in my judgment. We have lagged far too long, as nations such as Germany, the Soviet Union, Canada, and South Africa have used already available technology to produce hundreds of thousands of barrels of oil equivalent a day from synthetic fuels plants.

We know that almost a trillion dollars of investment will be needed in the energy field during the next 15 to 20 years in order to meet projected domestic demand. And, we know that private investors are very reluctant to commit such sums in the present uncertain regulatory and economic climate. S. 932 will establish a Government program to make investment more attractive and the regulatory delays less burdensome.

We will insulate investment, to a certain extent, from actions by the OPEC cartel that might be aimed at slowing America's progress

toward energy self-sufficiency, and we will let the American people and our allies abroad know that we are, indeed, serious about protecting our economy, our security, and our way of life.

I believe in the free enterprise system, and I believe that it should be the primary instrument in meeting the energy challenge. But, we cannot rely on market forces alone in solving America's energy problems. I urge my colleagues to join in supporting the Energy Committee's bill.

Mr. CHURCH. Mr. President, I am happy to support the Energy Committee version of title I of the bill S. 932. While there are many who may wish to modify the Energy Committee version of the bill, I urge the Senate's support for that version, because it is the most comprehensive approach to the myriad of problems that are associated with a program to test the utility of synthetic fuels in our economy.

The major difference between the Energy Committee version and the Banking Committee version is the creation of a Synthetic Fuels Corporation, by the former. Some may ask why we need to create this Federal corporation and may feel that the Department of Energy already has existing authority to perform a synthetic fuels program. However, the very fact that we have been giving the Department funding and authority to accomplish something for 5 years, and the fact that nothing much has happened, is proof enough that DOE should not be relied upon for this.

Many times since the Arab oil embargo of 1973, this Nation has gone through energy shortages, which have quickened our resolve to test this Nation's capability to produce synthetic fuels. Each time, as the crisis passes, and as our enthusiasm wanes, we have fallen away from the task.

Every year, when the annual budget review for DOE begins, we see that there are millions of dollars for more studies but very little tangible progress to augment our domestic fuel supply. A perfect example of this occurred in the fiscal year 1980 budget. All of us here have heard of the great potential which lies in the oil shale deposits of our country. With such great promise, the Government, you would think, should pursue a program which would at least test one technology of a modular size in order to determine the effects of production and the cost of the oil. Yet, as we slid into another crisis this year, and gas lines formed again, we were presented with a budget for oil shale modular demonstration that cut last year's funding to zero. As chairman of the Energy Research and Development Subcommittee, I have seen this type of vacillation become the hallmark of the synthetic fuels program for the past 5 years. An agency that is going to be subject to the outcome of an annual authorization and appropriation process will never be able to maintain the commitment needed to produce synthetic fuels.

Financiers who wish to back synthetic fuels ventures have tried in vain to work in this annual budget cycle, only to be frustrated time and time again. The proposal we present to you today will answer these problems by establishing a public corporation, the Synthetic Fuels Corporation. It will be primarily a financial corporation which will have a maximum life of 15 years. In addition, it will have sufficient budget authority to finance 10 to 12 large synthetic fuels plants which

will test a representative set of technologies, utilizing domestic resources. After the first testing phase, the Congress will examine a comprehensive plan by the Corporation to achieve a national production goal for synthetic fuels.

Therefore, I urge my colleagues to consider favorably the Energy Committee bill and the establishment of the Synthetic Fuels Corporation.

In addition, there are many other advantages to the Energy Committee version which I wish to point out. First of all, the Banking Committee version puts all responsibility for the testing of synthetic fuels in the President, pursuant to the Defense Production Act. This act was never written to address the very complex problems associated with testing synthetic fuels and the establishment of such a capital intensive industry, utilizing such advanced technologies. On the other hand, the Energy Committee version has addressed almost all of the issues involved in this complicated field.

Second, the Banking Committee version limits the size of synthetic fuel plants to no more than 50,000 barrels per day. This size may have been the optimum economic size in the past, but we have received testimony in the Energy Committee that, at least for some processes, this size will be uneconomical. Therefore, the Banking Committee has potentially excluded some of the technologies for coal conversion from any possibility of assistance under this act. This is arbitrary. The Energy Committee version has no limit, letting market economics dictate the size that is viable.

Third, the Banking Committee version grants the President the authority to sign purchase guarantees for 7 years; any longer guarantee will have to return to Congress. This was included by the Banking Committee to review large commitments and thereby protect the Treasury, but in fact this is no protection at all for the Government.

As world oil prices increase, they will approach and finally surpass the cost of producing synthetic fuels. It is clear, therefore, that the Federal Government will be exposed to its maximum liability under a purchase guarantee in the first 7 years and relatively little thereafter. For example, a 100,000 barrels per day plant with a \$15 per barrel subsidy would result in over a half of a billion dollars liability in the first year, declining quickly as the world oil prices rises. Therefore, this provision provides no real protection and the Energy Committee did not utilize it.

Fourth, the Banking Committee bill has no absolute dollar limitation on loan guarantees, so that under its bill we do not know what the maximum exposure of the Federal Government in this program will be. Similarly, the authorization for purchase guarantees, which is \$3 billion, can be utilized again and again, or rolled over. By contrast, the Energy Committee version has established the maximum amount of exposure by the Federal Government, for the first phase, at \$20 billion.

Finally, I would like to point out that the Banking Committee version does not provide any incentive for the development of one of our Nation's most abundant resources, municipal solid waste. The only provision for the development of biomass in the Banking Committee version is in the title on rural energy development, which does not include the waste generated in our Nation's urban areas. This is a serious oversight. Our cities produce vast amounts of waste which have been

estimated to reach 201 million tons of municipal solid waste annually by 1985, with 112 million tons being technically feasible for conversion to energy sources. If all of the material which is technically feasible to convert were processed, the Nation could realize energy savings equivalent to cover 310,000 barrels of oil daily. The Energy Committee version recognizes this fact and sets aside \$1 billion of the \$20 billion authorized for biomass conversion, which will include municipal solid waste plants. This will provide for as many as 20 plants throughout the country, part of which will explore this vast energy resource.

The Energy Committee version contains, in addition, eight other titles which go very far in the development of other forms of energy. The committee feels that all of these older forms should be given the accelerated attention that synthetic fuels will have. In particular, I would like to call attention to the titles on gasohol (title II) and geothermal (title V), which I have sponsored. I intend to introduce further remarks concerning those titles at the times of their consideration.

In conclusion, I urge support for the Energy Committee version of title I and, in addition, for the rest of the bill as reported by that committee.

November 7, 1979

DEFENSE PRODUCTION ACT AMENDMENTS OF 1979

The **ACTING PRESIDENT** pro tempore. Under the previous order, the Senate will not resume consideration of the unfinished business, S. 932, which the clerk will state.

The assistant legislative clerk read as follows:

A bill (S. 932) to extend the Defense Production Act of 1950, as amended.

The Senate resumed consideration of the bill.

AMENDMENT NO. 570

The **ACTING PRESIDENT** pro tempore. The business of the Senate is on the amendment of the Senator from Wisconsin.

Mr. STEVENS. Mr. President, I suggest the absence of a quorum.

The **ACTING PRESIDENT** pro tempore. The clerk will call the roll.

The assistant legislative clerk proceeded to call the roll.

Mr. STEVENS. Mr. President, I ask unanimous consent that the order for the quorum call be rescinded.

The **ACTING PRESIDENT** pro tempore. Without objection, it is so ordered.

Mr. STEVENS. Mr. President, a parliamentary inquiry. What is the time circumstance now with regard to the Proxmire amendment?

The **ACTING PRESIDENT** pro tempore. There will be 130 minutes, equally divided—65 minutes per side.

Mr. STEVENS. The Senator from Utah wishes to speak. The two managers of the bill are not here. With the consent of the majority leader, I would like to yield some time to the Senator from Utah.

How much time does the Senator wish?

Mr. GARN. Five minutes would be sufficient.

Mr. ROBERT C. BYRD. Will the Senator speak on the subject matter before us?

Mr. GARN. Yes.

Mr. ROBERT C. BYRD. Mr. President, on behalf of both my colleagues, I yield 5 minutes from their time. I ask that it be equally divided between Mr. Jackson and Mr. Proxmire.

The ACTING PRESIDENT pro tempore. Without objection, it is so ordered.

Mr. GARN. Senator Proxmire is on his way to the Chamber. We were in a Banking Committee markup and just left. He will be here soon.

Mr. STEVENS. The time is taken equally from both sides.

Mr. ROBERT C. BYRD. Mr. President, I take the liberty of yielding time to the distinguished Senator from Utah (Mr. Garn) from Mr. Proxmire's time.

Mr. GARN. I thank the distinguished Senator.

Mr. President, we have before us legislation designed to develop synthetic fuel sources in the United States. Certainly that is important, in view of our growing dependence on foreign oil. But it is also important to be realistic, to present real solutions to difficult problems. We will not help our cause by promising more than we can deliver, or by persuading the American people that passage of this legislation, in whatever form, is all that needs to be done about energy.

I have some specific concerns, Mr. President, about the sheer feasibility of building the number and kind of synthetic fuel plants that will be needed if we are just to meet the goals of President Carter's proposals, modest as they are.

I speak not just as a member of the Banking Committee, supporting the Banking Committee's energy bill, but also as a Senator from the State of Utah, where 95 percent of all the tar sands in the United States is located; where a large portion of the oil shale exists—in Utah, Wyoming, and Colorado; where a 300-year supply of coal for the entire country exists within my State.

So I do have a rather vital interest in synthetic fuel developments, and I speak both as a member of the Banking Committee and as a Senator from a State that is vitally concerned in this issue.

On July 15, President Carter proposed that by 1990 we would be producing 1.5 million barrels per day of synthetic oil properly considered. He also proposed that we produce another million barrels per day equivalent from tar sands, natural gas and heavy oil.

Now in order to get that kind of production, it will take a minimum of 35 synfuel plants, some oil shale plants, some coal gasification or liquefaction plants. Based upon the analysis and testimony of consultant engineers published in a report by the Subcommittee on Synthetic Fuels of the Committee on the Budget, constraints exist, besides price, that could impede the development of a synthetic fuels industry. These constraints are the basis of my concerns.

Before us now are two synfuels bills. Given the state of production technologies and the significant amounts of materials, labor, and fuels required, it is projected that no matter which funding mechanism is utilized, no significant production will occur until fiscal year 1987.

In the year 1980, planning might begin for at most two plants. Actual plant starts would reach no more than six per year by 1984 and a maximum of eight plants per year by 1990. Assume that it will take 7 years to complete each 50,000-barrel-per-day synthetic fuel plant. A typical coal gasification plant with surface mine will require

about 4,900 man-years of construction labor, and 1,100 operators. Underground mines to supply a commercial gasification plant would employ about 3,000 people. A typical oil shale plant will also require about 3,000 construction employees during peak periods and 1,100 operators.

In addition to direct employment at the synfuels plants, in both operators and construction workers, additional support people will be required in the community, resulting in a population increase of three to four times that of the construction or operating labor. Numerous analyses of the socioeconomic impacts of synfuels plants indicate that problems such as front-end financing and needed facilities and services will place major strains on small communities.

In the anticipated 35 large commercial-scale projects that will be initiated, most will reach the drawing boards about 1984 or 1985; thus, much of the design engineering and construction work will be running concurrently. With 35 projects having an average annual expenditure of \$400 million, each working simultaneously, the engineering and construction capacity of the Nation's engineering and construction industry will be severely taxed.

In fact, the controlling restraint will probably be construction industry capability to engineer, design, and construct plants capable of producing synthetic fuel at a production level of 50,000 barrels per day, which is the minimum rate needed to reach the President's goal if they operate at a 90-percent capacity.

Achieving a production level on the order of the announced administration goals could require 50 percent of the total existing capability of the industry. For example, Cameron Engineers, in a report given before the Subcommittee on Synthetic Fuels, notes that the following expenditures in manpower input can be anticipated for the years 1985 through 1990, when most of the actual construction will take place. It will require 27,000 professional employees to build and run these plants. But there are only 45,000 professional employees in the total industry in 1978.

According to data received from the U.S. Department of Labor, Bureau of Labor Statistics, there will be only 53,500 professional and technical positions by 1985. In other words, we will need at least 19,000 more professionals than there will be.

For the construction labor force the requirements for the period of 1985 through 1990 will be 210,000 workers compared with 4,500,000 workers for the total construction industry in 1978.

That too is a substantial increase. These figures, based on the development of 35 commercial-scale projects, highlight the strain such a program would place on the capacity of the Nation's engineering and construction industry. And it may well be that these requirements are far too low, since they are based on 50,000-barrel-per-day plants. It is far more likely that plants will be only 35,000 barrels per day or so, calling for far more engineering, construction, and operating manpower.

To complicate matters, because of the size and complexity of such projects, with an average annual expenditure of \$400 million, the contracts will go to only the large design and construction firms; for only they have the management and the technical skills needed to

handle such projects. A review of the existing capability of such firms, according to an Engineering News Record survey of April 12, 1979, indicates that of the firms that engage in the design and construction of manufacturing process plants, only 21 contracted for work in 1978 having a total accumulated dollar value near the level required by one large commercial synfuel project. We are talking about at least 35, and maybe as many as 70, of these plants. We simply do not have the engineering capability.

This brings us to another point. The Energy Committee bill mandates that only proven technologies be eligible for funding and that research and development in the field continue under the Energy Department. According to a report prepared by Cameron Engineers:

There is only one coal liquefaction technology ready for commercial application. This is the Fischer-Tropsch (SASOL) process used in South Africa, based on Lurgi coal gasifiers. A variation of the process to produce methanol instead of Fischer-Tropsch liquids could probably be developed to commercial readiness in five years. The only high BTU coal gasification technology ready for commercial application is also based on Lurgi coal gasifiers.

The report also identifies three other coal gasification processes which could be ready for engineering design by 1985. It also indicates that a number of above-ground oil shale retorting processes are ready, or nearly so, for development up to a scale capable of commercial production. It goes on to say:

There is no established class of "second generation" retorting processes on the horizon. Modified in situ processes are being tested by several companies, and may be ready for commercial application in five years if satisfactory yields can be demonstrated. There is no significant or large scale effort under way to develop technology for extracting U.S. tar sands.

Oil shale retorting technology is relatively far advanced in comparison to coal liquefaction. As the Cameron report indicates, the major reason for this is that oil shale has a higher hydrogen-to-carbon ratio than coal, and can be processed at milder temperatures and pressures. Coal liquefaction involves solid-liquid and solid-gas streams not normally found in petroleum processing. This creates a number of serious problems in attempting to scale-up operations to commercial plant size. Direct coal liquefaction will not be ready for commercial design until several thousand hours of sustained operation have been accumulated in large pilot plants. Any attempt to bypass normal development steps and proceed with building commercial plants before this experience is achieved will involve considerable technical and financial risks.

Lack of workable technology is not a major impediment to the production of synfuels. There is a problem however, in that only a limited number of processes can be considered as commercially proven, and these processes are generally viewed as having operational or economic drawbacks. The development schedule for a new technology under orderly conditions is approximately 15 years from the time a small-scale pilot plant is started to the time a commercial plant is started to the time a commercial plant can begin operation. This time scale can be hastened by skipping steps, but then the technical risk becomes substantial. As the risk rises, the willingness of sponsors and lenders to back the technology decreases. When these technical risks are coupled with marginal, or worse, economics, it is obvious why there are no commercial synfuels ventures in the country.

It is this risk, Mr. President, which is the most objectionable feature of the Energy Committee version of synfuel legislation. What the Energy Committee says to us, in effect is this: private investors will not invest in synfuel plants. The proponents of this bill have said as much, during this debate. American industry hesitates to put up the capital, because of the risks involved. The technology on this scale is uncertain, there may not be sufficient engineering talent available, as I have just outlined.

And so, the Energy Committee says, since business will not invest, we will invest the taxpayers' money. We will take \$88 billion of the taxpayers' money, money that we probably do not have, and certainly money the taxpayer can ill afford, and we will invest it for them. We will choose the appropriate technologies; we will select the companies; we will pass on the details of their management, and we will decide how best to invest that money.

Mr. President, I ask this: Does this investment become less risky because Government is making it, instead of private investors? No, of course not. But the element of choice is avoided. The choice of whether or not to invest, the choice of where to invest will be taken from us. Those decisions will be made by an independent energy corporation, answerable to no one. We cannot elect the officers; we cannot depose them; they are not susceptible to stockholders suits if they mess up. They have \$88 billion of our money, and they will invest it for us.

Mr. President, I would like to clarify one small point. The "investors" I am talking about here are not faceless millionaires. For the most part, they are people like us, ordinary working people, who have put their money in a bank, or who have some money in a retirement fund, or an investment fund, or in an insurance policy. That is whom we are talking about as investors. But notice that those are exactly the same people we are talking about as taxpayers. It is the same people. The taxpayers and the investors who are being asked to invest in this \$88 billion corporation are the same people—with one important difference.

As investors, they can choose. They can choose to buy the bonds of the synfuel corporation, or choose not to. They can buy stock in Occidental Petroleum, or they can put the money in Sun Oil, which has no oil shale operations. They can choose to put their money in a savings and loan, or a credit union; they can choose, through their company representatives and union representatives, to invest their retirement funds in energy stocks, or in synfuel stocks, or in drug companies. As investors, they have full freedom.

As taxpayers, all those choices are gone, all that freedom is removed. Their money is to be taken from them, and is going to be invested in the way the directors of a faceless corporation see fit.

Talk about accountability. Talk about unresponsive business. This \$88 billion monster is about as faceless, about as unapproachable, about as unresponsive as it is possible to get. The Energy Committee has carefully insulated it from any kind of financial restraint. It has an enormous pot of money to play with. Its directors are appointed by a President, in this case by the most political President in the history of the Nation. They are protected from conflict of interest laws, from disclosure laws, from laws preventing them from going to work for the

companies they have aided. They are, we are told, "nonpolitical"; but three executive department heads sit on the board, and even though they do not vote, is there anyone gullible enough to think that they will not have a great deal to say about what this corporation does?

These directors cannot be removed for financial incompetence. If they were the directors of a private corporation, and they consistently chose the wrong technology, you can bet they would be gone mighty quick. But not these directors. They can stay on and on, and if they lose a few billion of the taxpayers money, why, there is another \$88 billion where this one came from. Just crank up the printing press, or increase taxes.

So that is the worst feature of this legislation, Mr. President. It involves a loss of freedom to the individual. It makes no sense to talk about this corporation as if it were free enterprise. This has already been said earlier in the debate, and the administration did the same thing when they were lobbying for this bill on the Hill. But this is not free enterprise. Every kind of free market check on the corporation is carefully removed by this legislation. This is nationalization, or at least a great step toward it.

Some of the proponents of this bill profess to be surprised by the opposition of the energy industry to this bill. They talk about big oil, conveniently forgetting that the small businessman is even more opposed to this bill; the National Federation of Independent Business hates it like poison. They should not be so surprised. Business sees this bill for what it is: a giant step toward a total takeover of the energy industry by the Government. That is why they are opposed to it, and there is no reason for surprise.

I am not even surprised that all big business is not opposed to this takeover. There was some indication earlier in this discussion that the business roundtable lobbying against the Energy Committee bill. But the business roundtable has not lobbied against it. The business roundtable has taken no position on it. And the National Association of Manufacturers favors the Energy Committee version. Why?

Well, it has long been known that not all business is opposed to Government support and the control that comes with it. In this case, the strongest business argument against the Energy Security Corporation is not the position of big business, which is divided, but the position of small business, which is not. Some big business will make out very well under an Energy Security Corporation. After all, the bill provides for the taxpayer to build synfuel facilities for large corporations like Exxon and Mobil to run.

The surprise is not that they favor the Banking Committee version, but that they do not favor an Energy Committee version that could provide them with a soft living for a lot of years. But small business will not make out well, and small business knows it. That is why small business is here lobbying against an Energy Security Corporation, and I wish them every success.

So there we have it, Mr. President. We are asked to take from the investor his freedom of choice, and as a taxpayer, force him to take risks he would not take as an investor. Some Senators may be willing to apply that kind of force to the people of America, but I am not. Some may think the people of America will thank them for the loss

of freedom, but I do not. Everything I read, everything I hear, all the mail from home convinces me that people have had enough. They do not want another agency to give them synfuels. They want Government out of it, and most of all, they do not want another \$88 billion in taxes, whether direct or hidden as inflation.

There are those who say that the \$88 billion will come from the oil companies, in the form of a windfall profits tax. But we should, by now, have laid that lie to rest. Companies do not pay taxes; oil wells do not pay taxes; refineries do not pay taxes; tankers floating on the sea do not pay taxes. Only people pay taxes. And it is the American people who will pay these taxes, the American people who will be taxed to support an enterprise that cannot tempt money even from the supposedly greedy oil companies. Mr. President, that kind of socialization of risk is alien to us, and should not be undertaken here.

The Energy Security Corporation is a bad, bad idea. We should defeat it, and I hope we will.

Mr. President, the difference between the Banking Committee version, on which we worked long and hard, and the bill presented by the Energy Committee is one of the creation of a new bureaucracy, of creating this new Government agency, taking \$88 billion, deciding how that money will be spent, and the technologies involved.

One of the worst mistakes I have made since I have been in the Senate was to vote for the Department of Energy. I heard the same kind of rhetoric at that time: that all we had to do was to create this new Department and that would solve our problems.

Now we have a Department with a budget in excess of \$10 billion a year, with 22,000 employees. That is more money than all the oil companies put together spent last year in looking for new oil and natural gas.

So, with respect to the creation of an Energy Security Corporation, I hear the same rhetoric, and my hindsight tells me it will not work. The Banking Committee version relies on tax incentives, tax credits, and guaranteed purchase price to stimulate incentive in the private sector, without the massive Government involvement of taxpayers' funds and the creation of an Energy Security Corporation that I doubt will work very much better than does the Department of Energy.

So I hope that my colleagues, when the vote comes up today at 1:30, will take the route of voting for the Banking Committee bill, which will produce energy faster and at a much lower cost to the taxpayers of this country, without the necessity of creating another Government agency.

Mr. JOHNSTON. Mr. President, 36 years ago yesterday there was an article in the Elkins, W. Va., newspaper about a plane using coal gasoline. It so happens that this airplane departed for Washington from West Virginia with our colleague, who was then Representative Jennings Randolph, on board the airplane. By quirk of fate just recently a constituent of Senator Randolph found this old article underneath a rug and sent it to the Senator and it arrived and is now available to him after all these years.

Mr. President, I have a copy of the article and I ask unanimous consent that it be printed in the Record.

There being no objection, the article was ordered to be printed in the Record, as follows:

PLANE USES COAL GASOLINE

MORGANTOWN, W. VA., November 6.—An airplane using gasoline made from coal took off at the Morgantown airport today, for Washington.

Forty gallons of the synthetic fuel were brought here yesterday from the U.S. Bureau of Mines experimental plant at Pittsburgh for the first actual test of the product in an airplane.

After a seven-minute flight over the airport, Maj. Arthur C. Hyde, wing commander of the Maryland-District of Columbia Civil Air Patrol, said he was well-pleased with the results.

Before departing for Washington, Maj. Hyde, who flew here with Rep. Jennings Randolph (D-W. Va.), conducted another short test with Dr. Charles E. Lawall, president of West Virginia University. Several northern West Virginia coal operators were present.

The fuel was made under the supervision of Dr. H. H. Storch, manager of the Mines Bureau experimental plant, who was present for the test.

Randolph and Senator O'Mahoney (D-Wyo.) each have introduced bills to establish a number of semi-commercial plants for the manufacture of synthetic gasoline from coal.

Mr. JOHNSTON. Mr. President, the interesting thing about that article and about our colleague's involvement is that, along with Senator O'Mahoney, back in 1944 he was the author of the Synthetic Liquid Fuels Act of 1944 pursuant to which act a great deal of work was done over a dozen years involving synthetic liquid fuels. That work came on top of a prior effort begun in 1916 by the Bureau of Mines where they opened up two experimental retorts in Rifle, Colo. But as in the 1916 efforts which operated for a decade and the 1944 efforts that operated for over a dozen years, this country started and almost made a success with synthetic fuels but then decided to stop.

So, Mr. President, I think it is appropriate that we go back and review that history when we talk about synthetic liquid fuels today. One of the strongest points about our bill, that is the Energy Committee bill, is the fact that it has an independent corporation which will be impervious to the swings of energy thought and style in this Congress, the swings of opinion, such as we had following the 1944 act and the 1916 efforts of the Department of Energy.

Mr. President, this separate corporation will be manned by a five-member board who have staggered terms of 5 years each. It is the very essence of this corporation that we will be able to get some tough-minded businessmen on that corporation who have experience in plants, in industry, in banking, and have sufficient stature to make these business judgments.

Mr. President, that is the real difference between our bill and the Banking bill, one of the most essential differences, because the Banking bill puts it over in the Department of Energy where you are going to have these decisions made by and large by people who are fulltime, who are career Government people who almost by definition have no experience in banking, in business, in making that plethora of decisions involving the taking of business risks.

This independent corporation that we have created will allow us to seek and secure for service on this Board the most qualified people in the business community in this country. It will be a challenge that will attract the best business people in the country, and they will be able to

serve on this Board for a period of 5 years with one goal in mind, that is, to produce synthetic liquid fuels. I think that one point is one of the very strongest arguments in favor of the Energy Committee bill rather than the Banking bill.

Second, we have the amount of money necessary to do the job for synthetic liquid fuels. We have \$19 billion. Every expert agrees that it is going to take at least \$19 billion to do the job for synthetic liquid fuels in its first phase. The first phase is the building of commercial demonstrations, approximately 10 in number, large enough to demonstrate the various technologies, large enough to demonstrate, for example, in modified in situ shale a 50,000-barrel-a-day plant, large enough to test a retort or two involving different kinds of technologies for retorting of shale, large enough to try at least probably high Btu gas from coal, to also try a low Btu gas from coal because the technologies, the methods are different, and large enough probably to try a Fisher-Tropsch process such as they use in the SASOL I plant in South Africa, as well as perhaps the Exxon donor solvent process, approximately 10 in number. And that is going to take every bit of the \$19 billion in loan authority and price guarantee authority which we have in the Energy Committee bill, and the \$3 billion provided in the Banking Committee bill simply will not do the job.

I reiterate that the \$88 billion figure is a goal in our bill. If there is any doubt about that, we are prepared to make it absolutely clear. There is no doubt about it. The first phase money is \$19 billion for synfuels together with an additional billion dollars for biomass and you cannot go beyond that without action of this Congress. If that is a concern to any Senator it can be totally cleared up, but it is absolutely clear, I think, in the bill at this time. It is certainly our intention.

Mr. President, we had a briefing this morning from the CIA relative to events in Iran and in the world oil markets. While some of that information was secret, I can tell my colleagues in the Senate that there is not one encouraging fact on the energy horizon in this world. There is much to be discouraged about. I think to sum up the position we are in, as indicated in our briefing this morning, we face the real possibility, almost a probability, as we go into early 1980 of being short of crude oil in the world, I would say a probability of being short of crude oil as we go into 1980, possibly in the latter part of 1979, that there is a probability of gas lines reappearing during 1980 and in each subsequent year things should get more and more difficult.

Mr. President, if this Congress wants to respond to that need, and I know they do, I know there is probably not one single Member of this Senate who does not recognize the seriousness of the situation which this country finds itself in. But if we are to respond to that we cannot do it with synfuels with a \$3 billion program such as the Banking Committee has. It simply will not do it.

The Banking Committee's own engineers in their own report show that we cannot build 10 or 12 plants with \$3 billion in loan guarantees or price guarantees or in any other method even with the 3 to 1 leverage which they have with respect to loan guarantees.

It simply cannot be done. And I submit if we want to have it done we should get out with an independent corporation which is charged with one mandate, that is building synthetic fuel plants, and get away from the bureaucracy at the Department of Energy.

The Department of Energy and its predecessors have had 53 years in which to make a meaningful start with synfuels, 53 years, beginning with the experimental retorts at Rifle, Colo., and, Mr. President, each time they have started they have changed their minds. Each time they have started, the pressure, whether from international oil companies or from whatever other source, has politically caused the Department of Energy or their predecessors in the Bureau of Mines of the Department of Interior to change their minds and to say "We do not need any longer synthetic fuels."

The independent corporation created by this act, Mr. President, will have the necessary independence, will have the necessary experience, not just in energy but in matters financial and technological, in order to be able to respond to this great need of this country.

Mr. President, we are not as a nation, up until now certainly, doing what needs to be done with respect to energy. Just this week we read that the Nuclear Regulatory Commission has embarked upon an indefinite moratorium on our nuclear plants. Some plants destined to come on line at this particular time will not be able to come on line. One in the Vepco region that serves my home in Virginia will not be able to come on. Certain Members of Congress are advocating longer moratoria; some are advocating that some existing plants be shut down.

Mr. President, this is not the time and place to debate that matter, but it is safe to point out that that situation with respect to nuclear energy makes even more clear the need for sources of energy from synthetic fuels. It makes even more acute the difficulty in which this Nation finds itself.

Mr. President, with each passing week, with each passing month, things are getting worse in this country. It is becoming a crisis. We talked about, we have been talking about, the energy crisis since 1973, and that is almost a contradiction in terms to have a crisis last that long. I do not think it has been a crisis exactly in the past. I think it has been an acute shortage, but we are approaching the point, Mr. President, where it will be a crisis affecting the very social fabric of this Nation, affecting our total economic system.

I submit to my colleagues that it is time for this Senate to pull together on a program that is backed by the Energy Committee, by the President of the United States and, I hope, by a big majority of Senators in this Chamber.

Mr. PROXMIER. Mr. President, I am going to yield to the Senator from Colorado in 1 minute, but before I do that I would like to answer my good friend from Louisiana by saying that those of us who support the Banking Committee bill feel very strongly that this is a pro-synthetic fuels bill. This is the best way to get synthetic fuels produced, and get them produced effectively and as promptly as possible.

We feel that the crash program will be far less efficient, we feel that we will get less synthetic fuels produced under it, and I want to make that argument a little later on but, at this moment, I want to yield 10 minutes to my good friend from Colorado, Senator Hart.

Mr. HART. Mr. President, I thank the distinguished chairman of the Banking Committee.

There is not a State in the Union that would be more affected by the outcome of the legislation under consideration by the Senate today than the State of Colorado. All of our colleagues well know that the State of Colorado possesses 80 percent or more of a resource called oil shale. Oil shale, of all the potential sources of synthetic fuels, is the most attractive economically. It has had the most intensive investigation and scientific research, and is in the most ready position for commercial demonstration.

The State of Colorado also possesses extremely large coal reserves. We could feel the impact of a synthetic fuels industry based on those reserves also. Therefore, Mr. President, I feel very strongly that what the Senate does regarding a synthetic fuels industry today will have as great an impact on the future of the State of Colorado as any legislative measure that we will undertake in the coming years. Consequently, Mr. President, I would like to express some views concerning the synthetic fuels legislation presently before us.

At the outset, Mr. President, I think it must be made clear that the issue before the Senate, before the Congress, and before the American people is not whether we have an energy crisis; not whether that crisis is as great and as severe as the Senator from Louisiana has stated. If anything, the Senator from Louisiana, the Senator from Washington (Mr. Jackson), and others may have understated the case. We are in extremely perilous times. All of us agree that among the energy steps we must take, we must take steps in the public sector to create a synthetic fuels industry as much as possible in the private sector.

The real issue before the Senate, Mr. President, is what kind of industry should there be; what the economic impact of that industry will be on the Federal treasury; and what the impact will be on the structure of Government, and on the States affected. The issue is how will we get there; not whether we should go.

So, Mr. President, let me express my strong support for the Banking Committee approach to establish that synthetic fuels program. Except for some minor provisions, in my judgment the Banking Committee bill establishes a program to accomplish what is needed without the severe liabilities of the Energy Committee's program. The Energy Committee bill, in contrast, does so much more than is needed that it could be, in fact, counterproductive and could be seriously detrimental to the future of my State. And to the structure of the U.S. economy.

In July of this year, the Senate Budget Committee established a special Subcommittee on Synthetic Fuels. As chairman of that subcommittee, I have studied in detail the economic and budgetary aspects of various synthetic fuels proposals. My views regarding synthetic fuel legislation come primarily from the information contained in the report of the Senate Budget Committee's Subcommittee on Synthetic Fuels, as well as 15 years personally considering the various aspects of an oil shale program in this country.

This country's supplies of coal and oil shale are vast. Over the past few decades, processes have been developed to convert coal or oil shale into a substitute for crude oil or for natural gas. Many of these processes have been tested in laboratories and in small-scale or pilot-sized projects. None of the processes have been tested in this country at the full, commercial-scale size.

If all or some of the technologies to create synthetic fuel from coal or oil shale actually work as anticipated, this country could produce the equivalent of hundreds of millions of barrels of oil per day. All of this production would be used to reduce the dependence of the United States on foreign oil.

There are two key questions concerning the oil shale and coal processes. First, their economic practicality; second, their environmental quality. The only way this country can be assured these processes are economically practical and environmentally desirable is to test each of the processes in a full-scale, commercial-sized demonstration plant.

TWO PHASES

This country should be prepared to duplicate the desirable technologies in large numbers of synthetic fuel plants. The preparation for duplicating these plants should begin soon. But the decision to build duplicate plants should be postponed until the environmental and economic aspects of these technologies are known for certain.

In this era of budgetary stringency brought about by the need to balance the Federal budget and to reduce the burden of taxes, we must create a Federal program which can do the job with the least cost to the taxpayer and the least amount of Government intervention in the private sector or substitutes for private action. To this end, the synthetic fuels program should provide the needed incentives to encourage private industry to invest its capital resources. However, the Federal Government should not substitute its own financial resources for those of the private sector.

The administration of the Federal synthetic fuels program should rest with a Federal office large enough and independent enough to do the job, but not so large as to constitute a major increase in the size of the Federal Government or to constitute a threat to the Constitution or to increase Government intrusion into the ownership and means of production of energy supplies.

With those goals in mind, Mr. President, I think it is clear that the provisions of the Senate Banking bill, although they are somewhat imperfect, come much closer to the goals and the direction we should be going in than those of the Senate Energy Committee.

With the above goals in mind, I now turn to the key provisions in the Senate Banking Committee bill and compare those with the Senate Energy Committee bill.

ENERGY COMMITTEE'S PHASE II : TOO SOON TOO MUCH

Both the Banking and Energy Committee bills contain provisions for a first-phase program. The Banking Committee version contains no second phase. The Energy Committee version authorizes \$68 billion for a second phase, which would automatically go into effect within 3 years unless Congress disapproves. Although I believe we should prepare for a second phase. I believe the Energy Committee version is unacceptable in this regard.

It is extremely unlikely that sufficient information on the economical practicality and environmental safety of synthetic plants can

be gained within 3 years. In fact, it is likely that most synthetic fuel plants will take 5 years or more to construct. Therefore, the earliest date information will be available to consider a second phase will be in the mideighties.

The Energy Committee bill contains a goal of producing 1.5 million barrels of oil a day by 1995. I believe this goal is certainly in the range of potential production from synthetic fuels. If the processes tested in the first phase are acceptable, I believe that the United States is likely to be able to reach this production goal. However, at this time, it is undesirable to require the establishment of a plan to achieve that goal. In light of the economic practicality and environmental consequences of the best synthetic fuels technologies, it may be found that this goal is too large or unreachable by that date. Alternatively, the technologies could work even better than expected, and the goal could be too small. It just makes no sense to authorize \$68 billion now for a program containing such uncertainty.

Because the Banking Committee bill authorizes no second phase at this time, I strongly favor this approach. Although the banking bill does not require such a plan, it would certainly be expected that the administration in the mid-1980's would advise the Congress on the wisdom of proceeding with a second phase at that time.

INCENTIVES RELATED TO PRODUCTION OF FUEL, NOT TO COSTS OF CONSTRUCTION

The second question concerns the types of incentives in the two proposals. Both bills suggest price guarantees or purchase agreements as the primary incentive vehicle, and also provide loan guarantees. These incentive mechanisms are extremely desirable because they place most of the risk on the private companies which will build the projects. The assumption of this risk by the individual companies is absolutely necessary to weed out undesirable processes.

Because the companies themselves will bear what is called the technological risk, they will be sure that the process has a high probability of success before constructing a commercial-size plant. The price guarantees and purchase agreements will reduce the other current obstacle of risk market uncertainty. Since the Federal Government projects a substantial increase in world energy prices throughout the 1980's, price guarantees would, in effect, insure the private investor the equivalent of those projected world oil price increases. By keeping the price guarantees at reasonable levels, the Government will encourage private industry to weed out for themselves projects which would have an extremely high cost.

The provision of loan guarantees does somewhat reduce the risk of companies investing in synthetic fuels plants. In effect, by sharing the cost of investment through a loan guarantee, the Government reduces the risk of failure for an individual company. In general, I oppose loan guarantees. However, in this specific instance, I think loan guarantees are necessary to encourage the participation of companies which are too small to otherwise raise the capital for the commercial-scale synthetic fuels plants.

Without loan guarantees for these smaller companies, only the dozen or so largest oil companies could build synthetic fuels plants.

Only those very large companies have the capital assets large enough to be able to borrow money for such risky ventures. We need to encourage the participation of all sorts of companies, including intermediate-size corporations and those not now engaged in oil production. Therefore, loan guarantees are an important aspect of a synthetic fuels program.

UNDESIRABLE SUBSIDIES

The Energy Committee bill also contains further incentives which I believe are both unnecessary and undesirable. In fact, there are three types of incentive mechanisms that should be omitted—Government-owned company-operated plants direct loans, and joint ventures.

Although they are listed as low priority, the Energy Committee proposal would allow the Government to construct synthetic fuels plants at Federal expense and then to hire contractors to operate them. The Energy Committee offers this financial mechanism as a potential whip to drive the oil companies into spending their own money on synthetic fuels plants.

I believe such Government-owned company-operated facilities, GOCO's, as they are called, are a counterproductive element in the Energy Committee bill.

To the extent that the threat of GOCO's does drive the oil companies to invest their own funds in synthetic fuels plants when they wish not to, this could be counterproductive. Some synthetic fuels technologies are in need of more development before commercial plants are built. Fearing competition from a GOCO, a company might prematurely schedule construction of a plant before a process is completely developed. If we want to have processes which are economically practical and environmentally safe, we should also be sure that companies develop these processes to their satisfaction before the commercial plant is built. In this sense, the GOCO whip could crack back and lash the driver.

Second, the potential for investing in GOCO's could actually induce some companies to go that route. There are some companies that do not now own oil shale reserves and do not have the resources to purchase them. These companies under current conditions have an incentive to combine with other companies with greater financial resources or with oil shale reserves to jointly establish a commercial demonstration.

I am concerned that once the Government becomes involved in owning its own plants on Federal oil shale lands, the Government will be involved forever. I would much prefer that private corporations acquire and then invest their own capital resources in these demonstration plants so the corporate executives would be ready to invest even vaster sums of money in the duplication of successful technologies.

The Energy Committee proposal also contains provisions for direct Federal loans and joint ventures. Direct Federal loans would substitute for a loan guarantee in those cases where the private investor had such little ability to convince the financial sector in this country that this technology was good, that only the Government would make a loan. I believe if the technology and the company combined are in

such poor shape, that they cannot attract private financing, this is a strong signal that the Federal Government should not get involved. Instead, the Government might help fund a pilot plant to provide more information which might ultimately result in greater private participation and an eventual commercial plant.

Similarly, if a given company fails to form joint ventures because it cannot convince other companies of the relative merits of a particular process, I believe again that this is strong reason why the Federal Government should not become a participant.

In summary, the Banking Committee bill contains necessary elements to hasten the construction of prototype commercial plants. The Energy Committee bill contains further incentives which are unnecessary and undesirable.

ENERGY SECURITY CORPORATION

The next question concerns the Energy Security Corporation. The Banking Committee bill would rest the administration of the synthetic fuels program with the President. The administration of synthetic fuels incentives must be specifically the responsibility of some Federal office. But the Energy Committee provision for an Energy Security Corporation cannot be justified.

The idea of the Energy Security Corporation was conceived as a mechanism to spend \$88 billion on a synthetic fuels program. Such an entity might be needed if Congress were to go along with the three dozen or so synthetic fuels plants needed to achieve the President's long-term goals at this time. But I am sure that a new independent agency is not needed to fund the half dozen or so prototype commercial-scale synthetic fuel plants that would be implemented in the first phase of the synthetic fuels program.

Not only is the establishment of an Energy Security Corporation unnecessary, it is also undesirable. As proposed by the administration and the Senate Energy Committee, the Corporation would be outside the control of both the executive branch and the Congress. Tens of billions of dollars would be allocated to the managers of the Corporation and would be spent without further control or approval by the executive branch or Congress. Never has this country proposed that an agency responsible neither to the Congress nor to the President spend tens of billions of dollars of the taxpayers' money. I am concerned that the mere existence of the Federal Corporation would establish a level of Federal intrusion into the marketplace which, if anything, would drive out the high degree the private sector participation that will be required to establish a competitive synthetic fuels industry.

Furthermore, the mere establishment of a new corporation will take time. The most important element of the first phase of the synthetic fuels program is that it be begun immediately. It could take many months to establish a working corporation. I would prefer that an Office of Energy Security be established instead. This office would be smaller, leaner, and faster starting.

Mr. President, from a standpoint of those of us from the Western United States where many of these resources are located, as I said, I believe that the Banking Committee approach is vastly superior to that

offered by the Energy Committee. I believe it contains all the mechanisms necessary to establish a first-phase synthetic fuels program in the United States. With necessary levels of funding, the Banking Committee approach can achieve the construction of 8 to 10 prototype commercial plants in the mid-1980's. It will establish these plants without Government intrusion and substitution of the public sector for the private sector. It will minimize the cost to the taxpayer and maximize the degree of involvement by the private sector by large companies and small companies.

If I were to characterize the Energy Committee approach compared to the Banking Committee approach, I would say that the Energy Committee is doing the equivalent of authorizing an amount of money to build an armada of new battleships before the first battleship has ever been constructed. The Department of Defense learned long ago the need and wisdom of testing competing designs for the Navy before deciding upon a final approach. By authorizing the second phase of the synthetic fuels program before the first phase is actually in production, the Energy Committee proposal could result in duplicate plants before the first plant for any process is in operation.

The Banking Committee approach does not necessarily mean a slower approach, but it certainly means a more effective one. I believe that in the mid to late 1980's, this country will have a better chance of convincing OPEC that it can produce large amounts of synthetic fuels if it has a half dozen to a dozen finely tuned, well functioning, and environmentally sound plants. The alternative that could result from the Energy Committee proposal would be a lot of plants that are economically impractical and ones surrounded by environmental lawsuits.

Mr. President, as one who has the privilege of representing what many of us consider to be the most beautiful State in the Union but also one which contains, perhaps, the solution to part of this country's energy needs in its vast oil shale and coal reserves, I strongly urge my fellow Senators to vote for the Banking Committee approach. The Banking Committee will, in my judgment, come the closest to meeting the balance of problems faced by the State of Colorado and this country, in terms of its need to solve this energy problem and create a much needed synthetic fuels program as part of that solution but, at the same time, not destroy our State in the process.

Mr. PROXMIRE. Mr. President, will the Senator yield?

Mr. HART. Yes, I yield to the Senator from Wisconsin.

Mr. PROXMIRE. Mr. President, I congratulate the Senator from Colorado on his statement. I think it is most significant that the Senator from Colorado, representing as he does a State where 80 percent of the oil shale is—that is where the activity is going to be—gives us the advice on how this will affect his State. We should listen to him. We listen to other Senators about how legislation will affect their States. The junior Senator from Colorado agrees with him. The Governor of Colorado testified along the same lines before our committee.

The record is clear: the effect of a crash program in Colorado will be tremendously inflationary and very damaging to the environment.

The arguments made by the distinguished Senator from Colorado, I think are most compelling. I thank the Senator very much for his comments.

Mr. HART. I thank the Senator from Wisconsin.

The ACTING PRESIDENT pro tempore. Who yields time?

Mr. Metzenbaum addressed the Chair.

The ACTING PRESIDENT pro tempore. Who yields time to the Senator from Ohio?

Mr. METZENBAUM. Mr. President, I ask the Senator from Louisiana to yield me 10 minutes.

Mr. JOHNSTON. Mr. President, I yield 10 minutes to the distinguished Senator from Ohio.

Mr. METZENBAUM. Mr. President, I rise to discuss this legislation and the pending amendment. I think that the synthetic fuels bill before us is one of the most important pieces of legislation that we will consider this year. This piece of legislation could create one of the most major boondoggles in the history of our country, or it could do that which it is framed to do, which is to help us develop a synthetic fuels industry in this country.

The way the bill's language is set up, it has a good chance of working and achieving the objective that we seek. I recognize that it is fraught with dangers, and yet I feel that that is a calculated danger that we have to take in order to try to achieve a synthetic fuels industry and actually develop synthetic fuels in this country.

There are other measures and means of approaching this problem that are suggested in the pending amendment, and I am not prepared to denigrate the validity of that proposal, but it is my view, based upon my experience with the Department of Energy in the past, that if you just have a price guarantee or a loan guarantee, if you do not have an agency totally dedicated to developing synthetic fuels, I am afraid it will not happen.

As a matter of fact, realistically speaking, the Department of Energy has had the authority, the ability, and the funds to go ahead with the gasification of coal, the liquefaction of coal, and the development of other synthetic fuels sources that are contemplated to be developed under this legislation. But they have dragged their feet, and nothing has happened.

It occurs to me that it is worthwhile taking the chance of spending the \$20 billion or \$22 billion we are talking about here, and the possible \$88 billion—which, incidentally, only represents about the equivalent amount of money that we spend in 150 days for oil in this country, assuming a \$30 per barrel price; it is a lot of money, but it is not a lot of money when we talk about the oil industry and the importation of oil into this Nation, or when we talk about purchasing foreign oil at an expenditure of \$70 billion a year at the present time.

Frankly, I am not particularly concerned whether the number is \$3 billion, \$10 billion, \$20 billion, or \$88 billion, this Nation has to find alternative energy resources if we are going to be able to be a viable Nation in the future. So what do you do under those circumstances? You try to put together a piece of legislation that will achieve that objective. I am not certain that you achieve it totally; you try to provide a piece of legislation that protects conflicts of interest, and

I am not totally satisfied with the language of this bill, but at least it makes the effort. You attempt to provide for Government profit sharing, so that it may get insurance for its invested dollars, or those dollars it has put up at risk; and I am not totally satisfied with that language, but I think it will achieve the objective.

You try to provide for the protection of Government patent rights; you try to provide for a guaranteed cash fund to cover possible losses; and although I think the figure ought to be larger than it is in this legislation, at least it provides some measure of protection for the people of this country and the Treasury of this country.

Probably most importantly of all, we have made it possible to create Government-owned corporations, if they are necessary to commercialize technologies which the energy companies are not willing to develop. To me the whole concept of the GOCO's is essential if we are to have an adequate bargaining tool to deal with the oil companies and the energy companies involved and the largesse that will flow from this piece of legislation. It gives the Government a good bargaining tool. It does not mean the Government is going to go in business, but it does say that the Government can go in business if it wishes, by moving forward in an appropriate manner and a manner to protect the Treasury of the United States.

The GOCO's provide that such technologies as are available can and will be commercialized. It does make it possible to provide for an element of competition in this legislation, and it does have a little bit—not a whole lot, but a little bit—of protection for the consumer, who has so often been forgotten in the energy legislation that we have passed and considered in this session of Congress.

I must say, frankly and publicly, that I am very disturbed about the fact that after the Energy Committee spent days on end negotiating, amending, working together to try to develop an adequate concept for the development of Government corporations, GOCO's, that the next thing I learned about it was that the White House had agreed with the National Association of Manufacturers and other business groups to drop its support for the GOCO's and actually be against the GOCO's. That, to me, is actually pulling the rug out from under the energy subcommittee which spent days and weeks in trying to develop a piece of legislation. All I can say about that is that I was shocked about the White House change of position on that particular subject.

There are several provisions that do not deal with title I but they have to do with the conservation aspects of the legislation.

There are portions of this bill which provide for as strong, mandatory conservation measures as anything this Congress has been considering. Every time we have talked about conservation in this Congress, we have backed up, we have weakened the measure. There are provisions in the conservation portion of this legislation that, if not included, would cause me to find the legislation to be less than acceptable and I would be prepared to consider some other approach.

I believe we are talking about a total package. I believe the Energy Committee has made every effort to accommodate the interests and concerns of those who would be developing the energy, those who are concerned about the consumer aspects, and those who are concerned about conservation. I think that the package which is presented before

us today for our consideration is the best that we are able to put together. I believe it makes sense for us to take this calculated gamble, a phrase that I used previously but a phrase I believe this bill represents. It is that, and that is a good enough reason for us to stick with the bill which came out of the Energy Committee in its present form.

If and when it should be changed, and there should be concessions and accommodations to various special interests which are involved, then I think it would be important to take another look. But the bill in its present form has sufficient validity, has sufficient value, has sufficient advantages for the American people that I hope we will accept the Energy Committee bill, and at this point in time not look favorably upon the Banking Committee bill which, itself, does have some merit to it.

Mr. PROXMIRE. Mr. President, I yield 5 minutes to the Senator from New Mexico.

ENERGY MADNESS

Mr. SCHMITT. Mr. President, the solution to our energy supply and cost problems does not lie in more Government regulations, more Government management or more Federal taxes. The solution lies in the mobilization of the strength of Americans and their system of free enterprise.

More Government regulations, more Government management and more Federal taxes are at the root of our energy supply and cost problems. A giant bureaucracy called the Department of Energy has not solved these problems. An additional bureaucratic and judicial morass called an Energy Mobilization Board will not solve these problems. A massive new tax on the consumer called a windfall profits tax will not solve these problems. An uncontrolled and unfair competitor to American ingenuity and enterprise called an Energy Security Corporation will not solve these problems.

The only thing that will solve these problems will be Americans working and achieving as only they can. Government must be a benevolent referee and coordinator, but not a voracious adversary and competitor.

The proposal to create an Energy Security Corporation for the primary purpose of substituting major quantities of synthetic fuels for imports of foreign oil is based on worthy aims. No one will deny that. There is no question that the most clear and present danger to our national security is dependence on high-cost foreign imports for 50 percent of our oil supplies. Unfortunately, an \$88-billion crash program in synthetic-fuel production will not remove this clear and present danger.

The only short-term answer is to recreate the deregulated environment that used to exist and which will mobilize the domestic oil and gas producers, particularly the independents and their investors. These people who find 80 percent of the oil discovered in this country are part of the typical American business community. They search for oil and gas because it is both exciting and profitable and because they want to help this country. They expect the Government to referee their competition but they do not need Government to participate in and thereby destroy that competition. This is our short-term resource.

A crash synthetic-fuels production program will divert us away from the achievement of short-term energy independence by raising false hopes; by wasting capital, people, equipment and resources; by distorting the American enterprise system; and by aggravating energy price inflation. One of the best analyses of these factors is that of Congressman Dave Stockman of Michigan. I ask unanimous consent that his paper on this subject be printed in the Record at this point.

There being no objection, the statement was ordered to be printed in the Record, as follows:

SYNFUEL MADNESS

(By Representative Dave Stockman)

The current synfuels stampede is official Washington's version of tank-topping—a momentary eruption of the herd instinct based on yesterday's news and today's apprehensions. Fortunately, the Nation's gasoline lines are already diminishing in response to improving news, marginally better fuel supplies and the recovery of public composure.

Our best interests now will be served if the synfuels line on Capitol Hill dissipates and if President Carter, if he is to avoid yet another bad idea, forswears support for the synfuel stampede.

To be sure, synthetic fuels produced from heavy oils, tar sands, shale or coal will someday be as commonplace as imitation brick fireplaces. The energy appetites of industrial societies, the prodigious deposits of these substitutes that are available and our existing technical knowledge virtually guarantee this. But what will happen someday is not the issue.

The question is whether, on this side of the horizon, a \$60 to \$150 billion program to turn out 2 to 4 million barrels a day of synthetic fuels would accomplish any of its backers' aims. The answer, despite all the rhetoric and breast-beating, is that it wouldn't.

A crash program of this kind would have virtually no impact on the OPEC oil cartel's power in the 1980s and little impact in the 1990s. It would not significantly enhance our national security or our energy independence. It would not lower the current high world oil price or appreciably slow future price increases. Most important, it would not reduce our vulnerability to Iranian-type oil supply interruptions resulting from political instability, which are currently at the heart of our problem.

Yes, there may well be reason for Washington to promote a few demonstration synfuel plants at present, and there are other important steps we can take. But the last thing we need is a multibillion-dollar illusion to satisfy our national macho, to stroke ourselves with the mistaken belief that, finally, we are "doing something" about the energy problem.

What's happened amid the current synfuels euphoria is that many inconvenient facts have been ignored. The proposed plants, for example, wouldn't come off some Department of Energy cookie cutter. They would require massive engineering and construction feats for "first of a kind" projects.

Coal-liquids and shale-plant technologies, feedstock characteristics and site potentials vary so widely that they are not likely to become standardized any faster than lightwater nuclear reactors have been. Yet there are only a handful of world-scale engineering firms with the resources and specialized manpower to handle detailed, final plant designs and construction management.

These plants would also result in major environmental assaults, involving many air and water pollutants and, in the case of shale, the disposal of massive volumes of toxic tailings. Even a fast-track approval process by environmental regulators would likely take two to three years because of the irrational complexities of Clean Air Act preconstruction requirements.

In addition, simultaneous construction of 10 to 25 such plants would severely tax the skilled manpower and manufacturing capacity for a long list of critical components and subsystems. Finally, we should not ignore the experience of the only large-scale syncrude plant functioning today, the 130,000-barrel Canadian tar sands facility. It has been plagued with startup problems for nearly a year and is currently producing at substantially below rated capacity.

All this should make it clear that a massive synfuels program authorized this year would not affect the world oil price by so much as a dime before 1987. We would be fortunate to have 500,000 barrels a day of reliable output by the end of the next decade. That would be less than a 1 percent addition to the 50 million barrel a day world petroleum market—not much of a lever on oil prices. Even if we managed to turn out 2 million barrels a day by the early 1990s—which would take an estimated 40 synfuel plants—it would increase world supply by only 3 percent, again with only a modest impact on price.

Whatever the long-run prospects, then, a major U.S. synfuels program would do practically nothing about OPEC, and precious little about the world oil price, for at least a decade and a half.

Or you might want to consider the cost-benefit equation another way: A 2-miles-a-gallon increase in the average fuel economy of the U.S. auto fleet in 1985 would equal the annual output of 10 synfuel plants.

Another misleading notion of the synfuels crusaders is that the world oil price now is rising fast enough and production costs will be low enough for coal and shale liquids to be competitive by the time the synfuel plants are operating. The ease of taking giant risks with other people's money, of course, often makes bureaucrats and politicians overlook critical distinctions that private investors can ignore only at the peril of losing their own money.

Private investigators, for example, do not believe the cost estimates derived from their own DOE-financed pilot projects. There is a world of difference between back-of-the-envelope estimates drawn from small-scale experiments and the detailed engineering specifications needed for full-scale plants.

The experience of the Colony Group that planned to build a surface retort shale plant shortly after the first oil embargo is instructive. The back-of-the-envelope estimate before November 1973 was under \$7 a barrel. By the time the detailed engineering specifications had been completed in August 1975, the break-even price had jumped to \$22 a barrel. That figure is now nearly \$30 a barrel, and that doesn't include additional expenses stemming from toxic-substance and environmental regulations.

There should be no illusions, therefore, that most synfuels would cost anything less than the equivalent of \$30 to \$40 a barrel of crude oil—and that is in real dollars. If we keep inflating our economy at 10 percent a year, the nominal dollar cost would double to the \$60 to \$80 range before 1985.

Indeed, the naive assumption that the world oil price is rapidly closing in on the range at which synfuels will become competitive stems from our habit of measuring the world oil price in terms of the counterfeit money we print at home. What matters to foreign oil sellers, naturally, is not the nominal dollar price but the real terms of trade—the command over Western steel, engineering services and foodstuffs held by each barrel of a wasting asset.

In the context of that buying power, a substantial share of the oil price increase this year was necessary just to restore the terms of trade established in the fall of 1975. From then until last December, the real OPEC oil price—adjusted for dollar-exchange value loss and Western inflation—declined by a full 20 percent. If the new \$19 average price sticks, by year's end the real price of oil will have risen by less than 9 cents a gallon over the past four years.

In short, it would take a 4 percent annual increase in the real oil price over the next 15 years to close the present competitive gap. In light of the prospects for new production outside OPEC and continued fuel substitution and energy efficiencies around the world, that rate of real price escalation is by no means guaranteed. Scratch another argument.

What the synfuel stampedeers fail to recognize is that our current vulnerability does not stem from price pronouncements following the theatrics of the oil ministers' meeting in Geneva. The real dangers for us are unplanned and undesired convulsions in the producing areas themselves—the Iranian syndrome—and our failure to be prepared for them. The synfuels panacea would do almost nothing to ease this problem.

THE PIPELINE PROBLEM

Our vulnerability lies in the structure of the world oil production system, not in our absolute level of daily imports. There is simply no spare production capacity available now anywhere in the world, with the questionable exception of Saudi Arabia. This means that the mammoth free world oil supply system is balanced precariously on a "ragged edge." Any significant production curtail-

ment will touch off a worldwide scramble for suddenly scarcer supplies, with enormous upward pressure on prices until production is restored or a new price equilibrium is reached.

The key question here is whether the proposed new synfuel plants, if and when they are ever built, would be held in reserve as spare capacity or would simply become part of the world's base capacity.

It is inconceivable to me that synfuel crusaders intend for these multibillion-dollar giants to stand idle most of the time, waiting for a bomb-thrower in Baghdad to require a throttle-up to full production. Just a million barrels a day of standby synfuel capacity would cost nearly \$100 million a week to maintain in idle plants, even at today's optimistic estimates of capital costs.

In a world in which the marginal sources of petroleum supply carry an exceedingly high cost, the only way to get off the "ragged edge" is with low-cost storage.

Crude petroleum can be stored in salt domes and other geological formations for substantially less than \$1 a barrel. An internationally coordinated 2-billion-barrel storage program for all the non-Communist industrialized nations that are members of the Organisation for Economic Cooperation and Development (OECD) would cover a production outage of up to 5.5 million barrels a day for a year—or two years' worth of last winter's net loss from the Iranian interruption.

There may well be a persuasive rationale for a few demonstration synfuels plants at present. But the suspicion that these plants are not yet competitive could be readily tested simply by taking bids at a guaranteed purchase price of no more than \$5 a barrel above the world price over the life of the plants. If such a limited arrangement does not coax private capital out of the banks, it would be good reason to keep billions in public capital in the Treasury.

MR. SCHMITT. Let me quote just a few paragraphs from Congressman Stockman's discussion:

A crash program of this kind would have virtually no impact on the OPEC oil cartel's power in the 1980s and little impact in the 1990s. It would not significantly enhance our national security or our energy independence. It would not lower the current high world oil price or appreciably slow future price increases. Most important, it would not reduce our vulnerability to Iranian-type oil supply interruptions resulting from political instability, which are currently at the heart of our problem.

To further illustrate the folly of a crash synthetic-fuels production program, some facts supplied by the U.S. Geological Survey are enlightening.

I ask unanimous consent that those facts and a list accompanying those facts be printed in the Record at this point.

There being no objection, the information was ordered to be printed in the Record, as follows:

Coal Feed Stock Requirements for 50,000 bbl/day Commercial Synfuel Plant:
Feedstock (tons coal/day for bituminous coal)=20,000.

No. days operational/year=300.

6,000,000 tons of bituminous coal required/year/synfuel plant.

If lignite used, then 40,000 tons coal/day would be needed or 12,000,000 tons/year would be required for each synfuel plant.

What are coal requirements for Synfuel Plant with 30-year life span?

Bituminous coal: $30 \times 6,000,000 = 180,000,000$ tons.

Lignite: $30 \times 21,000,000 = 630,000,000$ tons.

These figures represent the approximate amount of coal to be converted in each synfuel plant.

How much in-the-ground coal resources would have to be available in a tract for each plant?

To answer this requires an analysis of the amount of coal that can be recovered by surface mining; by underground mining.

Generally, for surface mining a recovery factor of 80 percent is realistic; for underground mining the recovery factor, depending upon mining method, may be 30 to 35 percent. A nationwide average of 50 percent is not unrealistic, if certain assumptions are made.

Therefore:

The total in-the-ground bituminous coal resources required, if a 50 percent recovery factor is used, is 380,000,000 tons; for lignite 720,000,000 tons; subbituminous coal requirements would be between these two numbers.

What were the 50 largest bituminous and lignite mines in 1978?

The accompanying list, from the Keystone Coal Industry manual, gives the largest coal mines in the U.S. Note that only six mines produced more than 5 million tons during 1978. However, close scrutiny of the list suggests that very few surface or underground mines produce 6 to 12 million tons of coal per year. Generally, an underground mine with a production of 1 million tons/year is considered large; a surface mine which has a production of 5 million tons/year is considered large.

It is a good assumption that each synfuel plant will have a 30-year dedicated or captive coal reserve. This assumption arises from the large investment required for each plant—\$1.2 to \$3 billion.

Each plant should be (and probably will be) tailored to the physical and chemical characteristics and properties of a particular coal bed or a blending of several coal beds.

The first 6 to 12 Synfuel Plants will likely be easy to locate because of readily available coal capacity and water. However, those that follow will be faced increasingly with identifying the required large blocks of existing captive coal reserves, delineating uncommitted water resources, and overcoming societal and environmental barriers. Also, these synfuel plants will be competing more and more for coal with power plants converting from oil and gas to coal or new plants constructed solely for coal combustion.

The lead time for development of a coal mine varies by state, type of mine, and ownership. The new surface mining regulations add at least two years to previous lead times. Federal ownership adds at least an additional several years. The current best guess at lead time for coal mine development is: Surface—average 4 to 8 years; underground—average 6–10 years.

50 BIGGEST BITUMINOUS AND LIGNITE MINES IN 1978

[Compiled by Keystone Coal Industry Manual]

[The 50 biggest bituminous and lignite coal mines in 1978 produced 170,065,874 tons or 25.9 percent of the estimated total production. 41 were commercial operations; 9 captive, 22 increased their output over the previous year]

Company: Name of mine: State	Production		
	1978	1977	1950
1. AMAX Coal Co.: Belle Ayr (S): Wyoming.....	18,065,664	13,331,844	New 1972
2. Western Energy Co.: Rosebud (SXC): Montana.....	10,576,000	9,773,676	New 1968
3. Decker Coal Co.: Decker Nos. 1 and 2 (S): Montana.....	9,073,592	10,380,421	New 1972
4. Utah International Inc.: Navajo (S): New Mexico.....	8,000,000	6,900,000	New 1963
5. Peabody Coal Co.: Kayenta (S): Arizona.....	6,771,768	6,887,578	New 1974
6. Bridger Coal Co.: Jim Bridger (S): Wyoming.....	5,175,540	5,448,953	New 1973
7. Washington Irr. & Devel. Co.: Centralia (SXC): Washington.....	4,700,000	4,955,242	New 1970
8. Peabody Coal Co.: River King (D and S): Illinois.....	4,597,514	4,521,969	New 1967
9. Kemmerer Coal Co.: Elkol-Sorenson (S): Wyoming.....	4,061,794	4,385,147	New 1963
10. Sunoco Energy Devel. Co.: Cordero (S): Wyoming.....	3,800,000	2,128,545	New 1976
11. Consolidation Coal Co.: Western Reg.: Glenharold (S): North Dakota.....	3,686,094	3,382,000	New 1963
12. Baukol-Noonan Inc.: Center (S): North Dakota.....	3,400,000	1,791,273	New 1973
13. Glenrock Coal Co.: Dave Johnston (SXC): Wyoming.....	3,326,616	3,326,616	New 1968
14. Southwestern Illinois Coal Corp.: Captain (S): Illinois.....	3,200,000	3,100,000	New 1961
15. Arch Mineral Corp.: Medicine Bow (S): Wyoming.....	3,100,000	2,800,000	New 1974
16. Pittsburg & Midway Coal Mining Co.: McKinley (S): New Mexico.....	2,992,958	1,369,199	New 1582
17. Energy Fuels Corp.: Energy No. 1 (S): Colorado.....	2,909,272	3,048,584	New 9596
18. Knife River Coal Mining Co.: Gascoyne (S) (C): North Dakota.....	2,871,839	2,520,363	9,458
19. Rosebud Coal Sales Co.: Rosebud (S): Wyoming.....	2,868,048	2,708,888	New 1962
20. Big Horn Coal Co.: Big Horn (S): Wyoming.....	2,838,862	2,394,532	350,841
21. Arch Mineral Corp.: Seminole No. 2 (S): Wyoming.....	2,800,000	2,800,000	New 1971
22. Peabody Coal Co.: Sinclair (D and S): Kentucky W.....	2,655,851	3,625,599	New 1962
23. Carter Mining Co.: Rawhide (S): Wyoming.....	2,620,000	1,000,000	New 1975
24. Western Coal Co.: San Juan (S): New Mexico.....	2,613,030	2,186,637	New 1974
25. Westmoreland Resources, Inc.: Abseloka (S): Montana.....	2,554,201	4,529,053	New 1974
26. Peabody Coal Co.: Lynnville (S): Indiana.....	2,552,602	3,365,003	New 1955
27. Central Ohio Coal Co.: Muskingum (SXC): Ohio.....	2,525,651	3,125,220	New 1952
28. Peabody Coal Co.: Black Mesa (S): Arizona.....	2,515,820	4,427,704	New 1970
29. Arch Mineral Corp.: Seminole No. 1 (S): Wyoming.....	2,500,000	2,300,000	New 1971
30. AMAX Coal Co.: Leahy (S): Illinois.....	2,274,880	2,342,907	New 1971
31. Peabody Coal Co.: River Queen (D and S): Kentucky W.....	2,224,959	3,766,210	New 1957
32. Clinchfield Div., Pittston Co.: Moss No. 3 (D and S): Virginia.....	2,221,440	3,327,634	New 1958
33. Old Ben Coal Co.: Old Ben No. 2 (S): Indiana.....	2,154,693	2,424,483	New 1975

50 BIGGEST BITUMINOUS AND LIGNITE MINES IN 1978—Continued

[Compiled by Keystone Coal Industry Manual]

[The 50 biggest bituminous and lignite coal mines in 1978 produced 170,065,874 tons or 25.9 percent of the estimated total production. 41 were commercial operations; 9 captive, 22 increased their output over the previous year]

Company: Name of mine: State	Production		
	1978	1977	1969
34. Mountain Drive Coal Corp.: No. 1 Strip (S): Kentucky.....	2,100,000	1,686,824	New 1967
35. Peabody Coal Co.: No. 10: Illinois.....	2,086,287	2,807,583	New 1962
36. Peabody Coal Co.: Big Sky (S): Montana.....	2,064,886	2,343,877	New 1970
37. Monterey Coal Co.: No. 1 (C): Illinois.....	2,006,000	2,524,815	New 1970
38. Martiki Coal Corp.: Martiki (S): Kentucky.....	2,800,000	1,480,976	New 1975
39. Thunder Basin Coal Co.: Black Thunder (S)(C): Wyoming.....	1,983,334	42,000	New 1975
40. Consolidation Coal Co., Midwestern Region Burning Star No. 4 (S): Illinois.....	1,958,683	2,016,800	New 1973
41. Peabody Coal Co.: Universal (S): Indiana.....	1,947,341	2,376,732	New 1970
42. Knife River Coal Mining Co.: Baulah (S)(C): North Dakota.....	1,887,267	1,885,230	412,338
43. Consolidation Coal Co., Eastern Region: Ireland: West Virginia.....	1,860,986	1,626,232	New 1967
44. Consolidation Coal Co., Midwestern Region: Burning Star No. 5 (S) Illinois.....	1,832,714	1,832,714	New 1975
45. Kerr-McGee Coal Corp.: Jacobs Ranch (S): Oklahoma.....	1,800,000	-----	New 1974
46. Old Ben Coal Co.: Old Ben No. 1 (S): Indiana.....	1,760,611	2,388,212	1,224,190
47. Island Creek Coal Co.: Pavier (D and S): Kentucky W.....	1,726,726	2,188,704	New 1972
48. U.S. Steel Corp.: Maple Creek No. 1 and 2 (C): Pennsylvania.....	1,614,000	2,044,000	New 1969
49. U.S. Steel Corp.: Robena (C): Pennsylvania.....	1,612,000	2,233,000	3,137,832
50. Consolidation Coal Co., North West Virginia Region: Robinson Run: West Virginia.....	1,586,351	2,009,000	New 1968
Total production, 50 mines.....	170,065,874	165,801,180	5,134,000
U.S. total production, bituminous and lignite.....	656,800,000	688,575,000	516,311,000
Percent listed mines to national total.....	25.9	24.1	1.0

Symbols: (C) captive mines, (S) surface mines, (D) deep mines—tonnage not coded is deep.

Mr. SCHMITT. Mr. President, I particularly would like to point out in those facts some that deal with the availability of a resource base in coal to support the kind of program advocated by the Energy Committee.

I asked the survey what are the 50 largest bituminous and lignite mines existing in 1978. They gave me a list, which is the list which has been printed in the Record.

Close scrutiny of the list suggests that very few surface or underground mines produce 6 to 12 million tons of coal per year, which is what would be required to support a single 50,000 barrel a day commercial synfuel plant.

Generally, an underground mine with a production of 1 million tons per year is considered large. A surface mine which has production of 5 million tons is considered large.

The first 6 to 12 synfuel plants will be easy to locate because there are readily available coal capacity and water, and this is the number envisioned by the Banking Committee bill. However, those that follow will be faced increasingly with identifying the required large blocks of existing captive coal reserves, delineating uncommitted water resources, and overcoming societal environmental barriers. Also, these plants will be competing more and more for coal with powerplants converting from oil and gas to coal or new plants constructed solely for coal consumption.

Those who now propose an Energy Mobilization Board, a massive new "windfall" tax on the American consumer, and an \$88 billion Energy Security Corporation, put less faith in American free enterprise than they put in the management capabilities of "big govern-

ment." They put less faith in American technology and ingenuity than they put in the abilities of "big government." They put less faith in American competitive instincts than they put in the economic policies of "big government."

In their zeal to "stick it to 'big oil,'" the "big government" advocates inadvertently would destroy the small independent producers who find 80 percent of America's oil and gas. They would destroy the financial investments of millions of American stockholders, pension-fund members and investors. They would saddle an already overburdened American taxpayer with massive new taxes. They would further discourage an already discouraged American consumer with accelerated inflation. Increased Government inefficiency and increased prices for energy and goods and services produced by energy is no cure for inflation or anything else.

Many of those who have bent with the environmental winds of the sixties and seventies now would sacrifice the environment and water of the West with a crash program to make synthetic fuel out of coal and oil shale. At the same time, they turn their backs on the vast and environmentally sound resources of domestic oil and gas, of safe and wise use of nuclear power, of conservation through technological efficiency, and of solar and fusion energy.

Within a decade, we must be in a technical and economic posture for the private sector to begin to substitute major investments in synthetic fuel plants for major investments in fewer and fewer oil and gas fields. Research, development, and commercial demonstration in synthetic fuel production must be accelerated and at the same time we must rapidly increase domestic oil and gas production to remove the clear and present danger represented by our excessive imports of foreign oil.

Unfortunately, we are moving in a direction opposite to that which common sense would dictate. There is no other expression for what is happening except "energy madness." Let us work to make sure that the Congress will wake up before this madness destroys our economy and our freedom.

The PRESIDING OFFICER (Mr. Hollings). The time of the Senator has expired.

The Senator from Louisiana.

Mr. JOHNSTON. Mr. President, I yield 5 minutes to the Senator from Kentucky.

Mr. FORD. I thank the distinguished floor manager.

Mr. President, I rise in support of the Energy and Natural Resources Committee's synfuels title I in S. 932. My colleagues on both sides of the issue have set forth the facts and arguments with precision and eloquence. I shall not retrace their steps.

Mr. President, I do wish to make a few observations of my own. These observations are based on my experience with the first State-funded synthetic fuels program in the Nation, observations based on 3 years of hard work by the Energy Committee.

My colleagues have described the dangers that face this Nation—\$70 billion a year in foreign oil imports; possible and even probable cutoff of foreign supplies at any time; \$900 billion in Eurodollars floating and manipulated to destroy our monetary system.

Mr. President, we have lost our independence. We have lost our freedom of choice. We have lost them to a combination of greed on one hand and a philosophy of no growth on the other hand. Mr. President, we have an opportunity now to regain our independence, to regain our freedom of choice. It may well be our last big chance.

Here, in the fall of 1979, when it finally appears that this body is ready to approve a major commitment toward the establishment of a domestic-based synthetic fuels industry, those of us who have long advocated this course are still in the position of having to apologize, explain and rationalize just what we are seeking to accomplish.

I cannot understand why it must be this way, and we are hearing nothing but the same time-worn arguments of the past.

We are told that the cost of this program is too high, and that we should have further study and investigation before spending that much money. We are told that there are other ways that we can reduce our dependence on foreign sources—just give us time and we will think of them.

How much longer can we afford to wait? How many more months—not years, but months—can this country's economy hold up amidst the continued uncertainty over future energy supplies?

A major synthetic fuels program such as this is something we could and should have done years ago. But because we did not, the cost of undertaking such an effort now will be considerably more expensive.

Mr. President, the Banking Committee version of S. 932 is a prime example of this “go slow, go slow” state of mind. Moreover, for all practical purposes, it mandates price and purchase guarantees for its limited number of projects.

What does this mean? It means a program for big oil, by big oil.

The only companies that would be in a position to raise the front-end money in the magnitude of \$2 to \$3 billion are the big oil companies. This is the way they want it and this is the way it would be under the “go-slow” approach. This is the way it will be even more if we do not come up with an adequate windfall profits tax.

Mr. President, I ask my colleagues to keep in mind that these are the same people who promised us synthetic fuels in the 1940's, who promised us synthetic fuels in the 1950's, in the 1960's and in the 1970's. These are the same people who, last month, gave us record profit reports largely based on their foreign operations. These are the same people who, largely under foreign duress, are refining much more of their imported crude oil products overseas—products that domestic synthetic fuels are intended to replace.

Mr. President, I believe that the Energy Committee's version of title I is a better balanced bill, a bill that better meets the requirements of today. I need not repeat the particulars in support of the position so ably set forth on Monday by Senators Jackson, Johnston, Hatfield, Domenici, Randolph and others. But I would like to touch on just a few points.

The \$20 billion in phase I and \$68 billion in phase II authorized would be the maximum total Federal exposure. Loans and loans guaranteed would be charged against the maximum at the figure of the loans, not in terms of any reserve requirement, as is usual with Federal loan guarantees. On Monday it was argued that the full \$88 billion

was, for practical purposes, an appropriation. This argument came from those whom I have heard so eloquently oppose charging loan guarantees against budget program totals—existing loan guarantees that in 1980 will top \$408 billion.

Mr. President, the Energy Committee bill, with its estimated 12 major and 80 small plants, with its wider forms of financial assistance, will open up participation to other than Big Oil. It will open up participation to regulated utilities and carriers, to chemical companies who possess real technological ability, to small oil companies, to energy companies who cannot raise large amounts of front-end money.

It was not easy to put this variety of financial assistance in the Energy Committee bill. It will not be easy to retain it on the floor.

Why? Because of the same alliance that has defeated synfuels in the past—a temporary cohabitation: Big Oil and the organized environmental movement. They were working together when the bill was in the Energy Committee to achieve different purposes—the oil companies to insure that only the oil companies will be involved in synthetic fuel development; the environmentalists to insure the same thing or, if they can achieve it, defeat of the whole synfuels program.

I caution the oil companies of the dangers of their present policy of rule or ruin so similar to that of the railroads in the years gone by: If there is not diversification in the synfuels program, your present allies will have you and synfuels and the Nation boxed in.

Once Big Oil is made the only real participant in synfuels, be prepared for antimerger legislation, be prepared for divestiture legislation, be prepared for nationalization proposals. Then there will be no synfuels program, and your real enemies may well gather allies from among those who, in the past, have been your supporters.

The PRESIDING OFFICER. Who yields time?

Mr. PROXMIER. Mr. President, I yield 5 minutes to the Senator from Illinois.

Mr. PERCY. Mr. President, I realize that both the Energy Committee and the Banking Committee have worked long and hard on this bill. Members who are supporting one or the other feel very deeply about the positions they have taken. It is paramount that we not take lightly either of the two versions we have before us. Today I intend, however, to speak in favor of the Banking Committee version of S. 932, the Energy Financing Act of 1979.

Today, and for much of this week, the U.S. Senate is on trial. We are being watched by citizens all cross the country. They are angry about gasoline lines.

They are angry and concerned and uncertain about our future energy supplies. They seem to feel our country has lost its way, that we cannot adequately provide enough energy to assure our citizens that we are going to have supplies. They are concerned that a country like Iran, can add so much instability to our situation. Of course, they are concerned about skyrocketing energy prices, and they will have good reason to be concerned again in December, if the supplies from Iran are cut off once more.

Americans are understandably fed up with our excessive dependence on foreign oil. They wonder why we have gotten into this situation, why we were not prepared for it. But they certainly expect us to do

something about it and do something about it now—not a decade or a decade and a half from now.

This, I think, is the main difference of opinion we have. The principal argument is whether or not we put our primary emphasis, our No. 1 priority, into the synthetic fuel field or into other areas. I have consulted with members of the business community, with whom I have worked for many, many years. The U.S. Chamber of Commerce. The Committee for Economic Development. Their consensus seems to be the same that is being reached in all the monumental studies that have been done on this subject—studies by the Ford Foundation, the “energy future” study that has just been completed by the graduate school of business of Harvard University.

These works conclusively show that there is a source available now in much greater supply than any of us would previously have believed—we can to maximize that. Synfuel has its place, but it should not become America’s No. 1 priority.

This week, the Senate has an opportunity to start to clean up the energy mess we are in, and begin a new era for our country, one that puts a major emphasis on the abundant, domestic sources of energy that we have barely begun to tap: Coal, solar power, and most importantly, conservation.

In addition, we have the potential to produce millions of barrels of synthetic oil through the conversion of coal, biomass, oil shale, and tar sands. These energy sources can, together, lead to significant reductions in the amount of oil we import each year.

Determining the most prudent path with which to exploit these domestic resources is the task the Senate faces now. We have before us now two versions of the same bill—S. 932—with very different answers.

Both bills, to their credit, offer significant sums—billions of dollars in fact—to encourage a national program to install solar and conservation devices in businesses and homes. The Banking Committee’s version offers over \$1.2 billion in low-interest loans for these measures, with \$4.2 billion more allotted for gasohol and biomass production—a total of \$11.4 billion.

Mr. President, may we have order, please, on the floor? There are at least four different conversations going on—five.

The PRESIDING OFFICER. The Senate will be in order.

The Senator’s 5 minutes have expired.

Who yields time to the Senator from Illinois?

Mr. PROXMIRE. I yield 1 more minute. We are running short of time.

Mr. PERCY. I would like to have 5, if we have them.

Mr. PROXMIRE. We are very limited on time.

I will yield 2 more. Will that do it? It is because I believe we are running out. We have a number of speakers.

Mr. PERCY. How about 3 more minutes?

Mr. PROXMIRE. All right. Three more minutes.

Mr. PERCY. I thank the Senator.

The PRESIDING OFFICER. The Senator from Illinois.

Mr. PERCY. Mr. President, the Energy Committee’s bill establishes a similar low-interest loan program for solar and conservation installation, but with less money—\$2.8 billion. In addition, Energy Commit-

tee sets aside nearly \$5 billion more for such innovations as weatherization grants for low-income dwellings, mandatory energy audits, wind and geothermal loans, and a Solar Energy Information Center.

Mr. President, a few weeks ago, a monumental conference was held at Dumbarton Oaks—the first conference held there since the founding of the United Nations.

That conference was addressed by Sheik Yamani. It was addressed by Charles Duncan, Secretary of Energy; by Admiral Turner, the Director of CIA; and, when the group of business and labor leaders moved to the White House, by the President of the United States.

Every single one of the speakers emphasized the absolute importance, the absolute first priority, that must be given to conservation.

Our future is fine, for those who can afford it. Certainly, if we could afford to designate \$88 billion for a synthetic fuel program for the future, then we would be a country of luxury.

But we are not in that kind of condition. We are facing a perilous situation. We have got to do something now.

What the Banking Committee bill does is recognize that synthetic fuels has a role. It has a place. There are important things that can be done. But it ought to be put in perspective. We should not set up a Synthetic Fuel Corporation.

The administration's original concept to set this up was as an energy security corporation, with much more leeway than this Synthetic Fuel Corporation to get into other areas, to invest in such areas as conservation.

This country uses about the equivalent of 39 billion barrels of oil a day. That is oil, equivalent energy usage.

We import 8 million to 9 million barrels a day. The potential for saving is 40 percent. It is clear that we can save as much as we import now, with a strong conservation program.

With that perspective, it is critical that we approve support of the Banking bill today.

The dollar amount differences between the two bills are obviously substantial, but the most substantive difference lies in their treatment of synthetic fuels.

The version passed by the Energy Committee would focus America's finances and energies toward substantial synthetic fuels production for the 1990's and beyond. It would create a Synthetic Fuels Corporation and reserve for it \$88 billion for synfuels demonstration and commercialization plans. The Energy Committee bill would proclaim an official synfuels goal for America of 1.5 million barrels a day of oil equivalent by 1995. In effect, it amounts to a congressional decree that developing our synthetic fuel supply is and should be America's No. 1 priority.

The bill presented by the Banking Committee takes a far different approach. It allots as much as \$9 billion to synthetic fuel research and demonstration, and of course, it leaves wide open the possibility of additional funding for these technologies in the future.

But it also recognizes that synthetic fuels should not be our No. 1 priority at this time—conservation claims that honor.

The Banking bill shows a sensitivity to the many unanswered questions about the economic and environmental impacts of synthetic fuels.

It recognizes that the Government's role should be to help answer these questions before any massive commitment of the taxpayer's money is made. While synthetic fuels may represent an important long-term measure for domestic energy production, there remains a more immediate measure—conservation—that deserves our top budgetary priority.

It is the Banking bill's sensitivity to this fact that leads me to enthusiastically endorse it here today.

I am concerned that some advocates of the Energy Committee's version of S. 932 have raised questions about their opponents' desire to see synthetic fuels come online in this country. They claim that, if we really care about synthetic fuel production, we should be willing to create a new Government entity and give it \$88 billion with which to make loans to synfuels producers, buy synthetic fuel products, and even buy synthetic fuel plants. The Energy Committee bill calls for a 3-year demonstration period for different synthetic fuel processes in order to evaluate their relative merits. And yet, it mandates that, no matter what these demonstrations show, we will have 1.5 million barrels of synthetic oil by 1995.

I cannot believe that this is a responsible plan to develop synthetic fuels. One fact should be crystal clear already, but I will state it again: Americans in and out of business do not want more Government intervention in the energy marketplace. They want less. By this criteria alone, the Banking bill is far superior to the Energy Committee bill.

As a Senator from Illinois, a State that is fourth in the Nation in producing one of the most abundant sources of synthetic fuel—coal—I hope that the gungho optimism of the Energy Committee proves to be warranted. There is nothing I would rather see than the hundreds of unemployed coal miners in Illinois put back to work tomorrow making coal gas, fuel oil, and crude oil from coal. Unfortunately, this may well turn out to be a pipedream, and we know for a fact that it will not happen for 10 years, at best. The fastest and most secure way to put coal miners back to work is through increasing our direct use of coal, not through synthetic fuels.

We must take a more cautious and deliberate approach toward synfuel exploration than that espoused in the Energy Committee bill.

In supporting the Banking Committee version of S. 932, I am supporting a bill that is dead serious about meeting the synfuels challenge, now. Between \$3 billion and \$9 billion in purchase or loan guarantees would be awarded by the President for a diversity of synthetic fuel demonstration projects, based on competitive bidding. Congress would review any loan promises over \$500 million, and all contracts would be entered into by October 1, 1981.

The authors of this bill, rightly, have found no need for a new Government entity, for exemptions from conflict-of-interest laws, or for premature promises of synfuel production levels. They see, in fact, that the creation of a powerful, unaccountable corporation for synfuels jeopardizes the objective analysis of this energy source that we all want.

A synthetic fuel corporation, created to encourage the commercial production of synfuels before their economic and environmental im-

pacts are known, threatens to turn synfuels facilities into gold-plated Edsels.

I have been impressed by arguments offered by Mel Horwitch, one of the authors of the Harvard Business School's "Energy Future," and by Roderick Hills, of the Committee for Economic Development, against the creation of a massive crash program to commercialize synthetic fuels. For example, Dr. Horwitch said that—

A massive synthetic fuels program is an example of choosing a conceptually simple technocratic solution for what is a complex societal problem. . . . There is strong likelihood that a massive synthetic fuels program would follow the same . . . pattern as the SST or nuclear power.

Legislation is needed that gets us looking now at the true costs and benefits of synfuels. If their potential is promising, the Congress should pass any additional legislation that is needed in several years to help carry these fuels into the commercial stage. To lead us toward answers on the merits of synfuels in the meantime, Mr. President, the Banking Committee bill takes a crucial first step.

The PRESIDING OFFICER. Who yields time?

Mr. PROXMIER. Mr. President, I yield 5 minutes to the Senator from Maine (Mr. Muskie).

The PRESIDING OFFICER. The Senator from Maine.

Mr. MUSKIE. Mr. President, I would like to indicate my support for the Senate Banking Committee synthetic fuels title with a few reservations; namely, I believe a higher level of funding and a broader mix of financing mechanisms are warranted.

First of all, as every Member of the Senate knows, it is a rare occasion when the chairman of the Budget Committee can come to the floor of the Senate and support a higher level of funding. However, in this instance, my posture is consistent with both the level of funding for new energy initiatives in the pending budget conference agreement and with our national energy needs.

Since the energy crisis of October 1973, we have debated energy policy and its impact on the U.S. economy, the quality of life, and our national security. We can debate no longer. Now is the time to act, the time to commit the resources required to lessen our dependency on imported oil.

The synfuels title offered by the Senate Banking Committee is an important step in developing alternative sources of liquid fuels. However, based upon the testimony heard before the Budget Committee's Subcommittee on Synthetic Fuels, the level of funding and the mix of financing mechanisms included in the Banking title are inadequate to meet the challenge.

To stimulate private development of synthetic fuels projects and to accommodate a diversified commercial demonstration program of 8 to 12 varied synfuel technologies, up-front financing of up to \$20 billion is needed. At the same time, to insure the broadest range of participation and development of pioneer technologies, a mix of economic incentives must be offered. Price guarantees and purchase agreements are required to stimulate the participation of large-scale corporations. These also tend to promote the utilization of proven technologies. Loan guarantees and direct loans are required to insure the participation of smaller corporations which lack access to capital. They also

provide the up-front financing required to develop unknown technologies.

In light of these requirements, I support the Banking Committee's use of purchase and price agreements. However, I believe the limits on loan guarantees must be amended and direct loans included as a financial incentive. At the same time, I recommended limited eligibility for direct loans and loan guarantees. Only those entities, who because of financial limitations would not otherwise participate in the synfuels program, should be eligible.

Mr. President, with the inclusion of up to \$20 billion authorization level and a mix of financial incentives, I would feel confident that the Senate had made an important step forward lessening the U.S. dependency on imported oil and I would strongly support the Senate Banking Committee's synthetic fuels title.

Mr. President, the development of energy policy in America has been a tremendous challenge. Last year the Congress sent the President the omnibus energy legislation that he had requested in 1977. But that legislation was insufficient to deal with our overall energy problems. The gas lines of this spring led to a further request by the President for major new legislation in the energy field.

The legislation before the Senate today, S. 932, has nine titles. It deals with issues that range from synfuels, gasohol, and energy conservation to wind and solar energy. The principal discussion on the Senate floor is likely to focus on the first title, which deals with synthetic fuels.

The Nation needs to develop test projects to see if oil and gas can be developed synthetically from other natural resources. But it would be wrong to pretend that this alternative has already been tested and made feasible. I believe the entire Senate is ready to commit billions of dollars to commercial test facilities. That is a major step forward in developing synthetic fuels.

But we must remember that we have time—and must take time—to place synthetic fuels in their proper perspective in energy policy.

If the commercial tests of synfuel plants are successful, then it is possible that this technology can make a useful contribution to solving some of our energy problems. But that contribution will come in the 1990's, if it comes at all.

In the 1980's, other actions will have to lead us to solutions. And many of these solutions are less costly, more probable, and more environmentally acceptable. We must have a strong emphasis on conservation. In many cases this will mean national efforts to conserve in order to reduce the regional impact of scarce fuels. The President's program announced this summer would do a number of important things to develop solutions that will be available in the 1980's, not just the 1990's. Heavy oil, solar energy, and unconventional gas are likely to produce significant fuel supplies in the next few years if we press their development quickly.

We ought to keep this in mind as we urge commercial testing of synthetic fuels. If we emphasize these other alternatives, we will see an improvement in our energy posture in the next decade.

The Senate Banking Committee and the Senate Energy Committee have reported different versions of S. 932. As I approach the Proxmire

amendment on synthetic fuels and the Energy Committee title, a key guideline has been to preserve the flexibility needed in making a major decision on a massive commitment to commercial development of synthetic fuels.

Unfortunately, the Senate's action on the Energy Mobilization Board legislation has impaired our flexibility in the way we might approach synthetic fuels. Because these facilities will be eligible for waivers of substantive environmental controls and other important laws once they are under construction, we must insure that adequate substantive standards are in place prior to the construction of any broad-scale commercial program.

Without this potential waiver, we might have been able to approach the development of synthetic fuels with greater flexibility. But that has now been ruled out. We must insist that large commercial development not occur until substantive standards are in place, and until we are sure that adequate environmental controls are available. I would have preferred to allow these controls to develop as we increased our experience with those new plants. But because the waiver option is available to be used, we cannot rely on that pattern of development.

In terms of Government organization, economic considerations, and environmental protection, the most sensible approach to synthetic fuels is to develop a limited number of commercial demonstration plants. This means withholding commitments about production goals, final Government organization, environmental acceptability, and economic desirability until those test projects are completed, analyzed and reviewed. The Proxmire amendment fulfills these objectives. The Energy Committee bill does not.

First. It is premature to make a commitment to a Federal governmental corporation as the means of developing synthetic fuels. The Banking Committee title has no such corporation. The Energy Committee version does have a corporation, and authorizes the Government to construct these facilities, whereas the Banking Committee title does not. In addition, if the decision were made to have a corporation, the Energy Committee version is not the best kind of corporation to create.

Second. As the study by the Budget Committee's Subcommittee on Synthetic Fuels shows, the method of financial support for synthetic fuels chosen will have significantly different impacts on the Federal budget. Commitments to a large-scale production program should not be made until test projects are producing and can be analyzed from this perspective.

Third. Great uncertainty surrounds the environmental impact of synthetic fuel plants. There are potential benefits, but also appear to be many potential disadvantages. Reliable information will simply not be available until test facilities are actually in operation. It may be necessary to curtail these plants once their impact is fully known. The commitment to a production goal of 1.5 million barrels of oil equivalent per day by 1995 would make a decision to curtail activities very difficult. The energy bill creates such a production commitment.

Fourth. The decision on the second phase of the synfuel program of the Energy Committee bill will be made before the test projects are in operation. It will come in the form of a report from the Energy Security Corporation in 1982 outlining a strategy for future production and

development. The plan would go into effect unless vetoed by Congress within 60 days, with no expedited procedures for a vote. The decision on the second phase is much too important to leave to this kind of process. I will now discuss these points more completely.

ENVIRONMENTAL IMPACTS

Mr. President, the Senate is being asked to launch a massive, crash program to develop synthetic fuels. The Senate is being asked to sanction a program without any clear idea of what impacts this will have on our health or natural resources.

The only thing we do know is that the program will have a major impact on the environment. A key question facing us now is whether we make an irrevocable commitment to synthetic fuels before their environmental impacts are fully understood.

Too often we have waited to observe the effects of long-term exposure to hazardous pollutants and only then recognized our mistakes.

Too often we have tried to remedy those mistakes only to find that the effects on human health and on our environment are tragically irreversible.

We should not knowingly repeat those mistakes now. Yet that is exactly what we are being asked to do.

The bill offered by the Energy Committee would launch a massive program to develop synthetic fuels.

We would commit our Nation to an investment of \$88 billion and incalculable damage to air quality, water quality, drinking water, and most important, the health of our citizens.

The Energy Committee legislation has been described as a two-stage approach. If this were really the case, perhaps such a large program would be justifiable.

However, it is in reality just a one-stage approach, with two phases. In the first phase, the Synthetic Fuels Corporation is given \$20 billion to distribute for the construction of a limited number of synfuel facilities.

Yet, before any experience can be gained from the construction and operation of those plants, the Corporation must submit its comprehensive development plan to Congress.

The Corporation will have no opportunity to learn from the demonstration facilities.

The Congress will have no opportunity to learn from the demonstration facilities. In fact, the Congress will have no opportunity to assess the wisdom of a crash synfuels program with the benefit of some knowledge.

This is our one opportunity to make that assessment.

So Mr. President, I cannot in good conscience make an affirmative assessment today.

The only knowledge I have indicates the following:

First, synthetic fuels technologies have been uneconomical for many years;

Second, the processes may not yet be technologically viable;

Third, there is a long list of conventional environmental hazards known to be associated with each synfuel process;

Fourth, there may be a long list of unconventional carcinogenic pollutants generated by these processes; and

Fifth, there are no pollution control requirements applicable to syn-fuels technologies now.

Frankly, this does not suggest to me the wisdom of the Energy Committee approach.

Another factor in this equation is the existence of the grandfather provision in the bill creating an Energy Mobilization Board.

This provision authorizes the Board to waive any Federal, State, or local requirement for a priority energy project once construction has begun. No matter what we learn about the hazards of a technology, once even the site has been cleared, no remedial action can be taken.

No additional cleanup can be required, even if we find that toxic pollutants are threatening local populations.

No additional cleanup can be required, even if ground water supplies of the local population become contaminated.

This provision, in my mind, is one of the critical factors in evaluating the two different synfuels bills before us now.

Not only do we have inadequate knowledge about the impacts of synfuels technologies, but once we do have some knowledge, we will not be able to apply it to acknowledged problems.

And, last week the House authorized the Energy Mobilization Board to waive any Federal substantive law which might delay the construction of a priority energy project. I suspect that this provision may find its way into the conference agreement. I hope not. The Senate is on record against that provision, and by a wide margin.

This unprecedented way of legislating away safeguards enacted over the last decade removes the assurance of protection from the impacts of synthetic fuel plants.

Mr. President, should we not pause and consider what kind of a monster we are creating in the guise of an energy policy?

Waiving existing laws for unknown results?

Waiving future regulation of unknown pollutants with unknown impacts on our health?

Waiving our prerogative to reject a massive commitment to synthetic fuels once we learn about their impacts?

It seems to me that an energy policy based on so many unknowns is worse than no energy policy at all. Sooner or later we will have to pay the high price for acting in ignorance.

The projects which are meant to benefit by all of these extraordinary measures remain unbuilt today not because of regulatory delay, not because of environmental obstructionism, but because they are dubious contributors to energy independence, and they are questionable technologically and economically.

They need waivers of law and financial support not because they suffer from overregulation—they have no Federal environmental regulations now—but because at this point they are problem makers, not problem solvers.

The development of these huge projects could constitute an irreversible commitment of massive capital outlay without sound consideration of the need, the costs and the harmful side effects of these technologies.

For all of these reasons, Mr. President, I believe that the best approach is the one contained in the Banking Committee bill.

Their approach permits a true multibillion dollar test of synthetic fuel technologies prior to a second multibillion dollars Federal commitment.

A real phased approach will give us some of the answers to the myriad of questions about the economic, technological and environmental impacts prior to a full-scale synfuels development program.

No commercial size synthetic fuels plants have ever been operated in this country. The only responsible course of action we can take is a one-of-a-kind test program of the various synfuels technologies.

The Banking Committee bill provides for this by authorizing up to 12 plants, each utilizing a different technology.

It does not prejudice the viability of these technologies by setting a production goal.

It does not commit us to a second phase of second generation plants.

It does not define the scope of Federal involvement in a subsequent stage.

It does not create a Federal corporation with a mission to achieve a production goal.

Only these limitations will guarantee proper concentration on testing and demonstration of different technologies during the first phase.

I would like to have printed in the Record at this point a discussion by the President's Council on Environmental Quality of some of the environmental impacts which a demonstration phase would provide more knowledge prior to an irreversible commitment to synfuels.

There being no objection, the material was ordered to be printed in the Record, as follows:

POTENTIAL ENVIRONMENTAL IMPACTS OF A LARGE SYNFUELS INDUSTRY¹

The environmental impacts of the synfuels programs described here assume that 85 percent of the proposed 2.0 mmb/d capacity by 1990 would come from coal liquefaction and 15 percent from oil shale. This assumption implies 34 coal liquefaction plants (50,000 b/d capacity) and 0.8 mmb/d from oil shale plants. For coal liquefaction, three-fourths of the coal fuel is assumed to come from the West.

I. DISRUPTION OF LAND DUE TO MINING

It is likely that new coal liquefaction plants would be constructed in the arid West (e.g., Montana, North Dakota, and Wyoming), where there are large amounts of low-cost strippable coal. If we assume three-fourths of the coal comes from strip mines in the West, 700 square miles of arid western land would be strip-mined over the 30 year lifetime of the plants. Another 140 square miles would be required for mining of oil shale and disposal of shale wastes, U.S. oil shale resources are concentrated in Colorado, Utah, and Wyoming. Land reclamation in dry regions, where much of our western coal and shale resources are located, is difficult and sometimes impossible. Our experience with reclamation in these areas is limited, as is our knowledge of the potential impact of coal and shale mining on critical ground water resources.

The 25 percent of the coal mined in the East could render about 7,600 square miles of land subject to subsidence over 30 years, if mined underground. Subsidence, which is difficult to predict or prevent, can damage roads and other structures, as well as disrupt natural water course patterns. If the coal in the East were to be surface-mined, 1,300 square miles would be affected. This

¹ Only traditional environmental impacts are treated here. The climatic impacts associated with increasing CO₂ concentration in the atmosphere are not addressed.

area, together with the 700 square miles in the West, is about the size of Delaware.

Mine drainage, soil erosion, and alteration of runoff patterns are effects of both coal and shale mining. The mining of shale wastes, however, results in a volume of processed shale that is about 1.2 times greater than the raw shale. The consequent difficulty in storing the shale waste in the excavated areas has led to proposals to use natural canyons as storage space for piles of spent shale up to 250 feet deep. This action might lead to the permanent loss of many canyon lands, as well as to the destruction of natural habitats for a number of rare and endangered species. Furthermore, the longterm stability of spent shale is uncertain. Re-vegetation of spent shale has not yet been demonstrated, and it is uncertain whether canyons filled with spent shale can be reclaimed for other uses.

II. DEMAND FOR WATER

The water requirement for synfuels production arises mainly from the need for cooling water to dispose of waste heat and the chemical need for hydrogen in the conversion process. Water may also be used to quench gaseous products to remove oil and particulates, in dust suppression, in land reclamation, and in solid waste disposal. The coal liquefaction program would require 245,000 acre-ft/yr of water in the West for operation of the plants and another 11,400 acre-ft/yr for mining the coal. In oil shale processing, water is chemically consumed in the generation of hydrogen for reactions with the raw shale, and still much larger quantities are consumed in mining and disposing of the shale. Oil shale operation would require an additional 43,000 acre-ft/yr for this synfuels program. This water would be sufficient to irrigate about 150,000 acres of agricultural land per year. Although this much water may be physically available at appropriate locations in the West, much of it is already committed to agricultural use. Acquiring the water rights to this much water may be a formidable problem. If significant amounts of western water are diverted from agricultural purposes for synfuels plants and coal mining, a decline in agricultural production may result. Indeed, some farmland may be purchased solely to acquire the accompanying water rights for use in synfuels production.

In addition to the water consumed in the synfuels plants, the new towns of workers (over a thousand per plant for the 5 to 6 years necessary for construction) will put a further drain on water supplies.

III. WATER POLLUTION

Any reduction in downstream flow carried by consumption of water at a synfuels plant may increase the temperature and salinity of the water below the diversion point. For example, the withdrawal of low salinity water from the Upper Colorado River Basin for use in synfuels processing will produce an increase in salinity in the Lower Colorado because of the decreased dilution effect.

Although, with strict controls direct emissions of contaminated water from coal liquefaction plants may be minimized by recycling and using waste treatment ponds, some water pollution would result from leaching of the solid wastes from coal liquefaction plants. These solid wastes consist of mineral residue, sludge from water treatment, particulates, char, and heavy tar residues. Leachates from these solid wastes may contain silicates, trace metals, hydrocarbons, nitrogen compounds, and polynuclear aromatics. Some of these substances are known or suspected carcinogens, and many are toxic to aquatic and territorial flora and fauna.

Surface coal mining may pollute ground water through leaching of minerals and trace elements from the mine wastes. Common solids dissolved by this downward percolation of water are carbonates, sulfates, chlorides, phosphates, and trace metals. Water pumped from underground coal mines may be acidic and high in concentrations of trace elements and dissolved solids. The mining of coal for coal liquefaction contaminates water by alkaline runoff from solid waste piles. Mining the coal for this coal liquefaction program would also contaminate western water sources with traces of heavy metals, sulfates, and 340,000 tons of dissolved solids.

For oil shale development, the impact on water resources appears critical. For example, with in situ processes the possibility of disruption and/or contamination of ground water aquifers exists with consequent impacts on the quantity and quality of water drawn from wells for domestic, industrial, and commercial use.

Raw and spent shale piles can leach salts and otherwise contaminate ground water and surface water bodies. For surface retort operations, information is still incomplete on the means to minimize leaching of shale piles and effluents from retort and other waste waters. Retort water can contain hazardous substances such as ammonia, dissolved solids, hydrogen sulfide, and organic compounds.

IV. AIR POLLUTION

Although there are presently no federal performance standards for synfuel plants, it is expected that they will be required to meet federal standards. The two main sources of air pollution from synfuels plants are the combustion of fuels to provide heat, steam, and electricity for the plant and the emission of sulfur-containing waste gas from sulfur recovery operations. Even assuming application of "best available" emission controls, these synfuels plants would produce, for example, 130,000 tons of SO_2 and 230,000 tons of NO_x per year. Other air pollutants include 42,000 tons of particulates and 14,000 tons of hydrocarbons. The mining of coal for coal liquefaction would produce an additional 3,300 tons of particulates per year, as well as significant quantities of SO_2 .

V. PUBLIC AND WORKER HEALTH

The chief concern over air and water quality is that people will be exposed to toxic or hazardous substances through breathing contaminated air, drinking contaminated water or otherwise being exposed to hazardous and/or carcinogenic substances from coal and oil shale, such as sulfur oxides, nitrogen oxides, particulates, aromatic hydrocarbons, and trace metals.

In the second generation technologies planned for a U.S. coal liquefaction program (H-coal, Exxon donor solvent, SRC-II), trace elements such as arsenic, cadmium, and selenium, may be vaporized during the liquefaction process and (unlike coal gasification or coal methanol processes, where apparently most of the trace elements are left in the residue) some of these trace elements will be carried through into the synthetic crude product. Some of these trace elements are known or suspected carcinogens to man. Many of the same trace elements are also present in oil shale, and some of them will remain in the syncrude product as well.

Although differences in emissions from shale or coal syncrude and those of conventional fuel are not fully identified, the main differences may be the higher concentration of trace elements and aromatics in the synfuels. The potential for exposure of the general public to these trace elements during transportation, handling, and combustion of the final products may therefore be greater with second generation liquefaction processes.

VI. ENVIRONMENT STANDARDS

Careful siting of synfuels and strict adherence to pollution control standards, some of which have not been developed, would tend to mitigate adverse environmental consequences. Much additional research and development is necessary to determine the toxicity and/or carcinogenicity of many of the air and water pollutants as well as to determine the optimal pollution control and siting strategies for the various facilities and activities involved.

Mr. MUSKIE. Mr. President, the scientific community is also concerned about the additional carbon dioxide released into the atmosphere from the synfuels technologies which use coal. A July 1979 report to the Council on Environmental Quality concluded that massive synfuels would accelerate the warming trend of the Earth, depleting the ozone layer. This in turn would result in a "greenhouse effect," with potentially drastic environmental implications.

An Energy Committee print on synthetic fuels describes this as a chicken-egg situation in which there is delay on the part of the agencies in promulgating standards due to little operational data, and pertinent data cannot be generated because there are no commercial-scale demonstration plants.

The report concludes:

This chicken-egg situation could be avoided by following a policy which would provide for collection of pertinent data on environmental impacts and on occupational health and safety from the initial commercial-scale plants rather than trying to guess or estimate the precise nature and magnitude of the pollution problems in advance.

Mr. President, I have not prejudged the ultimate viability of synthetic fuels as a major contributor to domestic energy independence. It may be possible to minimize adequately the known and unknown environmental impacts associated with synfuels. It remains to be seen.

But if in the demonstration phase it is determined that the hazards are too great, the risks to our basic environmental structure too severe, the unknowns too unresolvable, we must preserve our option to walk away from those technologies.

GOVERNMENT CORPORATIONS: CONSTRUCTION AND OWNERSHIP OF SYNTHETIC FUELS PLANTS

One of the issues debated extensively in this legislation is the question of the role of the Federal Government in constructing and owning synthetic fuels plants. In the Energy Committee bill these are known as "corporation construction projects."

The concept of developing a Government corporation to build a few "yardstick" plants was discussed in previous energy debates over the last few years. There is a legitimate role for Government corporations in the synthetic fuels area. The Government corporation could be a means of providing the Government with full information on all aspects of the development of these new projects. The Government would then have a way of measuring the accomplishments and requests for support from the private sector. These requests could be measured against the Government's own experience with its own plants.

Government corporations can also consider additional objectives, such as social, economic development, and environmental policies that are not likely to be represented in private ventures.

Unfortunately, the kind of corporation and the kind of Government construction projects available in the Energy Committee bill does not meet the characteristics I have discussed. A Government construction project would not be allowed unless all other means of bringing the project into construction had failed. In other words, the Government would be given the right to build the projects most likely to fail, and be barred from construction facilities where private interests might exist.

When could the Government build its own "Government construction project"?

Only when all private interests had rejected price supports;

Only when all private interests had rejected long-term purchase guarantees;

Only when no private interests were available to work on a joint venture with the Government; and

Only when all private interests had refused to develop and agree to a specially negotiated contract free from the competitive bidding process.

In short, the Government would be limited to building those plants that no private interest was willing to undertake even when the Government removed most risks from the project.

Mr. President, that seems to be a clear invitation for the Government to try something that is bound to fail.

There are two meanings given to the word "corporation" in this synfuels debate. I have been discussing the first, which is Government ownership of a construction project.

The second is to use a corporation as the general organizational forum for developing all aspects of the synthetic fuels program. This would include administering price supports, loan guarantees, and any financial support mechanisms. Until we know whether or not a massive developmental commitment should be made to synthetic fuels, the concept of a corporation as a governing organization is premature. During a testing program of commercial demonstration projects, the present governmental structure is adequate. In fact, the present agencies should be able to move more rapidly than a new corporation. They are in existence with procedures, regulations, and personnel in place. A new corporation would have to be organized, with rules and regulations to be adopted.

In addition, the symbolic commitment to a massive synfuels program which the corporation format stands for is a premature commitment.

In summary, the symbolic commitment to an overall corporation is premature, and the authority for corporation construction projects of specific plants is too flawed in the present Energy Committee bill to be supportable.

The Banking Committee title is preferable. It allows the President to assign to existing Government organizations the task of stimulating synthetic fuels. It does not allow Government construction projects. It is interesting that the Banking Committee unanimously rejected the proposal to create a new Federal corporation. The committee report on pages 31-33 contains a convincing discussion as to why no Energy Security Corporation is needed in the present synthetic fuels legislation. Let me quote from the four principle arguments raised on page 31 of the report:

1. Creating a Federal corporation for the sole purpose of managing a synthetic fuels program is inconsistent with the committee's intent to minimize Federal interference with an involvement in synthetic fuels development efforts;
2. Creating the Corporation is inconsistent with the phased-development approach approved by the committee;
3. Initial and irreversible authorization of \$88 billion for Federal financial assistance is excessive and further promotes a high degree of Federal interference in the program; and
4. The time needed to create a new Federal corporation would be likely to delay initiation of the first phase of commercial testing.

Mr. President, I ask unanimous consent that Charlene Sturbetts and Karl Braithwaite of the Committee on Environment and Public Works be granted privilege of the floor during the consideration of S. 932 which extends the Defense Production Act of 1950, as amended.

The PRESIDING OFFICER. Without objection, it is so ordered.

Several Senators addressed the Chair.

Mr. JOHNSTON. Mr. President, I yield 5 minutes to the distinguished Senator from Wisconsin.

The PRESIDING OFFICER. The Senator from Wisconsin.

Mr. NELSON. Mr. President, 6½ years ago, before the Arab oil embargo, I spoke to an Earth Week audience in the small town of Burlington, Wis. Earth Week 1973 was organized around the theme "Energy Conservation" in recognition of the fact that our most significant potential source of "new energy" is that energy we conserve. The people of Burlington engaged in a 1-week program of energy conservation and energy education. The Burlington program attracted nationwide attention and was covered by the television networks and the national press.

We organized Earth Week around the theme of energy conservation because we were already in a major energy crisis even though there was very little public awareness or discussion of it. By 1973, there should have been no doubt that we were in urgent need of a national program directed toward energy conservation and the development of alternative energy supplies, solar energy and synthetic fuels. The Nation's ability to supply energy has been increasingly tested since then by the demands of consumers. Consumer demands, as a result, have been subject to rejection for the first time in our history. Abundant sources of inexpensive energy are no longer available. And since we must reduce our reliance on foreign energy, we have no choice but to establish a bold national strategy pursuing all avenues for alternative energy sources.

No one can be absolutely certain today what strategies are in fact the best. We must pursue a wide variety of options in an intelligent fashion, adjusting our plans year by year in accordance with scientific and technological developments.

The avenues to be pursued include the expansion of solar energy, enhanced oil and gas recovery, gasohol, biomass and synthetic fuels. At some stage, one of these alternatives may become more significant than the others; this would alter the strategy to be followed. But for now, no preconceived notion or prejudice for a particular alternative can serve our Nation well.

The degree of success which energy conservation achieves is sure to affect the choice of energy actions which the Nation must face. Increased production programs cannot succeed if energy consumption continues to increase. Sweeping conservation measures must be pursued immediately to increase the efficiency of our automobiles, our factories, and our homes. If the energy savings from conservation begin to approach the intensity of the conservation rhetoric, the need for alternative energy supplies would be significantly reduced. Our strategy would then be modified to accommodate the reduced demand.

Among the strategies, the one which has been the most controversial is the synthetic fuels approach. The potential for synthetic fuels is great, in quantity and quality. We cannot ignore this fact. There are vast supplies of coal, oil shale, and tar sands within our borders. Synthetic fuels permit us to use these resources with flexibility. As we look ahead and gain experience with synthesizing oil and gas from these resources, we will develop the necessary information to modify our approach to guarantee a balance between the need for energy and the importance of protecting our natural environment. Indeed, with increased conservation and breakthroughs in alternative energy tech-

nology, the day may arrive when synthetic fuels will not be needed. However, that day is not imminent at this time. In fact, there is a higher likelihood that synthetic fuels will play a useful part in our Nation's future in ways both symbolic and real.

While it is clear that reservations have been raised about synthetic fuels, it is equally clear that this Nation cannot run the risk of having insufficient energy to meet the country's industrial and residential needs. The allegations about synthetic fuels can and must be answered. Enormous production of synthetic oil and gas is mechanically possible but is not desirable as an initial goal. Moreover, this bill is designed carefully to avoid setting excessive objectives. In fact, this bill creates a synthetic fuels corporation to examine synthetic fuels carefully and to determine at an appropriate time if the program should be expanded, maintained, or curtailed.

This is not permanent commitment by the Congress, rather, it is a beginning. No individual or group can chart the course of this corporation with certainty. Some uncertainty is inevitable in any new venture and creating a synthetic fuels corporation is a major departure from business as usual. However, failing to act courageously now would be more disturbing for the Nation in the future.

The United States already has, at this time, demonstration plants and laboratories producing synthetic fuel in amounts which justify further development. This bill would provide the momentum and the funds to build upon the many years of completed research in order to produce commercial fuel from these technologies. As a nation, we must have this capability available to increase our options for response to the unpredictability of world events. At such a time as this commercial capability is achieved, it may be that additional policy decisions will be necessary to direct the use of this potential. But without the capacity in place, the Nation finds itself in a perpetual state of vulnerability which overshadows any uncertainty connected with synthetic fuels.

No one should be surprised that since 1973 we have accomplished so little in satisfying these needs. Americans, citizens, and public officials alike, too often have avoided the harsh realities of a world with limited resources. America is at a crossroads of different choices. The only easy option is continued denial of our energy problem. The hard option means still harder choices, all of which involve some lowering of our expectations and a willingness to follow self-discipline for the common good.

Fortunately, our Nation has within its borders some of the world's most abundant supplies of energy. To develop and use this energy wisely will require a nationwide effort of uncommon leadership, unquestionable fairness, and uncompromising personal honesty. How America resolves the energy problem in the two remaining decades of this century will determine much about our future as a Nation and as a people. There are no short cuts. There is no way to avoid making some mistakes. But we have delayed too long already. Five years of hearings and scores of witnesses provide the basis for this legislation. An impending disaster, if we fail again to act decisively, provides a compelling motivation.

The United States in 1979 is actually more dependent on oil for its energy supply than we were in 1973, the year of the oil embargo. In-

stead of weaning ourselves from this dangerous vulnerability on foreign and domestic sources of petroleum, we are now actually more dependent. In the 6 years since 1973, our dependence on oil rose from 46.7 percent of the Nation's total energy consumption to 48.6 percent. During that same period, use of our only abundant domestic resource, coal, barely increased from 17.8 percent to 18 percent of total consumption. This year alone, Americans will pay out over \$70 billion just to purchase foreign oil. Clearly, we have no choice except to reduce imports. But how do we accomplish this?

First, we must begin immediately in the short term by expanding our conservation effort. An approach which combines financial incentives and disincentives, pricing policies, voluntary choice and mandatory policies, when necessary, is a first step. Based upon research conducted by the Department of Energy, the Federal Highway Administration, the President's Commission on Coal, and the Department of Transportation, evidence indicates that the Nation could save 5.5 million barrels of oil per day by 1985 through a conservation program. These energy conservation steps are neither exotic nor unreasonable in cost. They include: Increased automobile fuel economy (2,250 million barrels per day); increased gasoline prices (375,000 barrels per day); accelerated coal conversion of EPA approved utilities (725,000 barrels per day); thermostat controls (375,000 barrels per day); State and local recycling initiatives (250,000 barrels per day); weatherization of homes and buildings (500,000 barrels per day); and increased utilization of mass transit (300,000 barrels per day). These are practical opportunities which must be pursued immediately. Better utilization of the energy we already have is equivalent to the discovery of new oil reserves.

As ambitious as the conservation program outlined here is, it cannot be sufficient by itself. Merely reducing foreign oil dependence does not solve our problem. In the decades to come, domestic exploration for oil and natural gas will become increasingly unsuccessful. We will spend more, drill more, drill deeper, and find less oil and gas. This is the nature of finite resources. Consequently, we are assured of having less natural liquid and gaseous fuel at our disposal. Therefore, we must develop synthetic fuel alternatives. In short, we must direct more effort toward our more abundant resources of coal, oil shale, and tar sands. Choosing this direction does not relieve us of the need to conserve, for these synthetic fuels cannot be commercialized in significant amounts for at least a decade. Conservation and enhanced oil and gas recovery are our only meaningful large-scale solutions for this next decade. However, to be ready for the period thereafter, we must begin synthetic fuels now.

The people of our country appear to be ready to move now. A recent Louis Harris poll reports that 75 percent of the people surveyed favor risking Federal moneys to aid in the building of a synthetic fuels industry for converting coal to oil and gas. Only 19 percent of the people were opposed. A sizable 61 percent supported using \$10 billion for product purchase guarantees to buy the synthetic fuels when produced. And 57 percent wanted additional sources of energy rather than more conservation. Only 21 percent of those surveyed in this poll favored more emphasis on conservation than on energy development. Clearly,

the Harris poll and others by the Gallup organization and the New York Times, demonstrate that the public wants and expects the Federal Government to act.

I support this bill because I believe every reasonable effort has been expended to balance the three most essential components: Energy development, environmental protection, and public accountability. The synthetic fuel corporation created by the bill will be subject to the full oversight of Congress. Moreover, it has a limited life of 10 years which will prevent any permanent expansion of the public sector by this unit. The corporation neither usurps present activity in the private sector nor duplicates any ongoing effort from another agency in the public sector. It will focus on enhancing and financing the production capabilities of private sector firms which can prove satisfactorily that they can produce what they promise. These "promises" must be supported by thousands of hours of laboratory, bench-scale, and demonstration plant testing. This is not a program to throw money at carelessly conceived schemes. On the contrary, it is designed to be a rigorous process of evaluation to select judiciously those technologies with the greatest potential for delivering oil and gas substitutes in the shortest period of time.

The money authorized for this effort is large enough to pursue the objective boldly, but small enough to prevent indiscriminate distribution of funds. The environmental posture of the corporation is strict enough to prevent a waiver of substantive law and yet flexible enough to streamline the procedure that gives decisive signals to the private sector. The degree of Government participation is large enough to coordinate the varied proposals submitted but small enough to avoid obstructing the energy professionals who will apply from the private sector.

In the last analysis, legislation to create a synthetic fuels corporation comes down to a question of options. Should we pursue this effort now despite the high cost and some risk in order to have a working technical capacity in place by the 1990's? Or should we take a chance solely on an option which relies on technologically more remote renewable energy sources. This latter course may require considerably more time and as yet unseen scientific breakthroughs. In my judgment we must pursue each of these options. We cannot afford the risk of ignoring any of them.

Without a coherent national energy policy, every passing day represents an erosion of the diminishing energy options at our disposal. Without options, our future is in serious jeopardy.

Recent nuclear accidents have seriously reduced support for a nuclear energy option and weakened public faith in assurances provided by the scientific and technological community. The Harrisburg accident and the continuing unresolved problem of nuclear waste promise to set nuclear power back for years. Even if the nuclear option can recover technically from this accident, it is uncertain whether adequate political and financial support can be generated again.

Notwithstanding the current U.S. agreement with Saudi Arabia, the Organization of Petroleum Exporting Countries (OPEC) as well as independent oil producers have given every indication that they will cut back or limit future crude oil production to amounts signifi-

cantly beneath their potential. This course of action limits another of our options—increased imports. Current increased oil production from Saudi Arabia is contingent upon our willingness to resolve the Palestinian question and our promise not to place any oil in the relatively empty strategic petroleum reserve. This sort of contingency is alarming. One can also speculate easily about the varied demands likely to be forthcoming from nations less sympathetic to America such as Iran and Libya.

The synthetic fuel alternative is, so far, another underutilized option. Even under optimal conditions the most advanced synthetic liquid fuel technology in the United States today cannot be commercialized until 1986. And optimal conditions are not likely.

Where is America going with this confused energy policy? What might the future dictate to us if we fail to have adequate options?

World oil production increased by 1 percent last year to 60.3 million barrels of oil per day. Usage in the United States is now at the rate of almost 18 million barrels per day. In short, we are using almost a third of the world's daily energy supply even though we represent only 6 percent of the world's population.

While the OPEC nations have just accelerated their oil price increase to approximately \$22 per barrel, the oil not sold on long-term contract is now selling on the "spot" market for \$40 to \$45.

A second example is the new pipelines designed to carry surplus Alaskan oil to the South and natural gas to the Midwest. After constant permit difficulties, Sohio abandoned its plans, saying that too many agencies and too many restrictions mitigated any chance for success. The natural gas pipeline has experienced financing uncertainties which may plague the Northern Tier oil pipeline as well.

Phased natural gas price deregulation, mandated under the 1978 National Energy Act, has produced increased prices as expected. Unexpected, however, was the magnitude of the glut of natural gas which immediately came on the market. Even more unexpected was the decrease in exploration for natural gas which had been predicted to increase as a result of the act. Considering this unusual combination of circumstances, and the new DOE mandate for industries to switch to natural gas, the excess of natural gas will disappear quite soon. The delay in new gas exploration will contribute then to another shortage in the near future.

The coal industry is facing a crisis. A lack of pricing consistency, accompanied by labor disruptions and conflicting Government signals has impeded coal exploration and commercial development. Government failure to speed coal conversion orders for utilities and factories has depressed demand for coal. This failure has been so widespread that the U.S. coal companies find themselves with surplus coal and unemployed miners while an increasing trade deficit goes to pay for OPEC oil.

The recent report on nuclear power by the Kemeny Commission has cast doubt on the future of the nuclear power option. Until the safety questions surrounding nuclear power are resolved, it is clear that the country will not expand its reliance upon nuclear power in any significant way.

Obviously, something must be done soon to accelerate domestic energy development. The process for obtaining a construction permit is

too time consuming. Construction and drilling processes are slow. Equipment is in short supply as are skilled laborers to operate it. More crucial in the immediate future will be an assessment of labor needs for producing the equipment and for operating the new plants to be built when the shortfall in energy supply and demand becomes widespread public knowledge. Waiting for the day of public recognition will be too late.

Failure to develop adequate domestic energy supply has renewed American interest in synthetic fuels. In recent years, the Department of Energy has limited the breadth of synthetic fuel research and development. Because of inadequate funds, research was often limited to one or two alternatives in coal liquefaction and gasification. If that method does not succeed, or does not succeed as soon as it is needed, the entire field is left without a working substitute. In the eventuality of another oil embargo, for the Nation to be without a certain category of fuel; that is, a clean solid fuel for an already heavily impacted inner city environment, is to be vulnerable beyond a reasonable limit. More discussion of joint ventures, Government-owned, commercially operated (GOCO) synthetic programs; that is, rubber in World War II, will be necessary. Even though this option may be politically unpopular, it may be the only effective method for pressuring the private sector into rapid action.

One might reasonably ask what prevents America from having a well-planned, functional national energy policy. At least four kinds of obstacles have plagued us so far: environmental obstacles; political obstacles; economic obstacles; and bureaucratic obstacles.

In order to maintain the quality of the environment at a given level, appropriate protective technology and procedure must be applied in the exploration and utilization phases of energy development. This technology is expensive and the procedures for implementation require time, which is similarly expensive. Costs of this kind are not readily absorbed by the private sector; therefore, they must be passed along to consumers in higher prices. These price increases are, of course, inflationary, but environmental protection preserves a natural resource upon which no price can be placed. Attempting a shortcut to reach increased energy production by disregarding environmental quality would surely return to haunt us.

In the trade-off between energy and environmental concerns, the environmental compromises must be restricted to procedural matters. Speeding up deliberative processes in order to provide clear signals to investors and developers is appropriate. Riding roughshod over substantive environmental standards is not only totally unacceptable, but it is counterproductive as well.

In the years since the Arab oil embargo, political obstacles have been the most serious impediment the Nation has faced in designing an energy policy. Too often, the energy alternatives proposed by public officials have been selected on the basis of their potential for popularity. Whether the technology or the policy would work well and prove itself effective has not been the primary objective. The overriding concern has usually been whether the active, vocal constituent groups like the idea immediately.

These political concessions were justified by the policymakers as responsiveness to the public interest. But in reality the truly tough

policy choices were being postponed or ignored. Solar energy, for example, is a potentially viable large-scale fuel source over the long term, but it is only a partial answer for the near term where the most immediate energy supply problems will be encountered.

Year after year, synthetic fuels research programs were cut from the budget for political reasons or forced to find funds through reprogramming actions from other budgetary allocations. Promising technologies such as in situ gasification were eliminated to save money. A coal liquefaction technology, completing the demonstration plant phase this fall, was unable to obtain funds for the commercialization stage due to efforts to reduce the budget deficit.

Beyond research, relatively little Federal governmental activity has been devoted to the specific problems of commercial development. Private sector activity in this direction, however, has been substantial although not highly visible. Recent Government interest in synthetic fuels has been a mixed blessing for the private sector. The potential for increased funding is, of course, appealing, but increased publicity has brought with it more intense public criticism. And while such an economic policy of deficit reduction might be theoretically desirable, the pursuit of that policy in recent years has retarded energy development and jeopardized the long-term stability of the economy.

Inasmuch as many American companies already consider nuclear power more uncertain, other alternative energy sources must be found to fill the void which will be created by the absence of additional nuclear power. Failure to fund the synthetic fuels program on a scale approximate to our energy needs will negate the possibility of using synthetics to diminish that void.

Since the current synthetic fuels proposals surfaced 5 months ago, there have been numerous criticisms raised in opposition to an immediate program to develop synthetic fuels. None of the critics has yet suggested that synthetic fuels technology will not work. Why have they not suggested this? Perhaps because variations on the technology are well known and have worked in other countries, for example, Germany and South Africa, during the last 40 years. Yet there appear to be six criticisms which are most commonly cited to discredit a synthetic fuels program for America.

Critics suggest that the prices for synthetic fuels will continue to rise artificially to a point always above prices for natural fuel. This would, allegedly, produce huge profits for the corporations in control of the technologies. If an unfair or monopolistic pricing mechanism were to develop, there are both legislative and judicial courses of action available to counteract these exercises if indeed it became necessary.

A second criticism is that the environment will be damaged by synthetic fuels. The negative questions about synthetic fuels are asked, but the positive answers to these questions are seldom mentioned. While it is appropriate to identify potential environmental problems, responsible criticism must admit that solutions to those problems exist today.

The basic technology associated with synthetic fuel processes is well known. As construction of synfuels plants proceeds, unanticipated advancements will be realized in fuel production and environ-

mental protection. It is important to note, however, that the technology already exists to enable synthetic fuels to meet Federal, State and local environmental standards.

Environmental criticism of synthetic fuels falls into two categories: Air quality and water quality.

The concern about air quality issues involves sulphur and nitrogen oxides, as well as particulates. Methods already exist for removing these pollutants. These methods are sufficient to meet current State and Federal standards.

During the gasification and liquefaction processes, acceptable methods of control include solvent extraction and absorption, lime scrubbing, steam and ammonia injection, flue gas recirculation, and various catalytic processes. The emission of particulates during combustion also can be controlled through electrostatic precipitators, scrubbers and filters.

The water conflict has two main components: Availability and quality. The availability of water in the West for synfuels is limited. Consequently, the development of oil shale in the West may have to be postponed until a satisfactory resolution of the water problem is possible. However, massive deposits of oil shale in the East, for example, in Kentucky and Ohio, are located contiguous to adequate water supplies and, therefore, could be developed without danger of exhausting the water supply.

Water used in the coal liquefaction process is recycled until extinction. All of the water is consumed in reactions or evaporated with no waste-water discharged to the surface draining system. Water runoff is captured for use in the plant, as well as to reclaim tank impurities. Moreover, separators and flotation units may be used to remove any oil remaining in the water and organic matter. Biological treating units can control the biological and chemical oxygen demand in order to prevent environmental imbalance and reduce effluent discharge.

Americans are going to face an unbridgeable gap between the supply and demand for liquid fuels if we continue on our present course. We can obtain the necessary domestic liquid production only by significantly increasing the amount of synthetic crude oil we generate from abundant national coal sources. This increase can occur without decreasing environmental standards.

A third criticism focuses on the limited amount of money available for energy research and development. This view suggests that those moneys ought to be directed away from synthetic fuels which are capital intensive in order to fund conservation and other alternative energy sources which require less capital expenditure. It is true that synthetic fuels will require substantial amounts of capital.

However, the liquefaction and gasification processes which produce synthetic fuels have a probability for large-scale production of energy higher than any of the customary alternatives mentioned. Furthermore, they have the greatest likelihood of producing energy in amounts significant enough to reduce foreign oil imports by substantial proportions.

However, supporting synthetic fuels does not mean opposing conservation or alternative energy methods. Inasmuch as all of these options will be needed, we must pursue them all. In the next decade.

when large-scale synthetic fuels plants will be a rarity, far-reaching conservation methods will have to be employed. Alternative, renewable energy from passive and active solar power to small hydro power to biomass options will have to complement that conservation effort.

But none of these endeavors produces a liquid fuel for use in our transportation network. None of these alternatives derives a liquid substitute for use as a lubricant or as a petrochemical base. And energy use patterns in this Nation show no sign of moving away from liquid fuels in the foreseeable future.

A fourth criticism suggests that synthetic fuel development will be inflationary. There is no question that substantial Federal expenditures for developing synthetic fuels do contribute to shortrun inflation. However, a recent study by the Congressional Budget Office indicates that inflation will increase only one-tenth of 1 percent as a result of this bill. Moreover, the continuing increase in foreign oil import prices is far more inflationary, and also tends to decrease employment and economic stability in this country, as well as damaging our attempts to balance exports and imports on the international market.

Conversely, when synthetic fuels are developed in America, using abundant domestic energy sources, the jobs created by such development will be maintained or expanded within our country. In addition, the multiplier effect operates to expand the opportunities for other economic activity well beyond just the initial expenditure of money.

Another criticism is that synthetic fuel development would be unnecessary if the American people would only conserve. Conservation must, of course, be a major component in any energy plan, but it cannot be the entire plan. Important as it is, it cannot produce the complete answer by itself.

A final criticism suggests that America has moved too rapidly into synthetic fuels development and must slow down this process in order that we might reconsider our direction. While any concern about undue haste is understandable, our precarious energy supply situation demands that we move now with all deliberate speed. Commercialization of synthetic fuels technologies requires substantial lead-time to meet appropriate permit standards and construction schedules. These plants cannot be built in a year. Indeed, at full speed after initial commercialization construction of a 50,000 barrel-per-day facility will require approximately 3 years for completion.

The projections of future energy availability indicate that Americans are going to face an unbridgeable gap between supply and demand if we continue on our present course. Something must be done to fill this gap. The gap will not be filled by promises or politics. It can be filled only by increased production and conservation. We can obtain the necessary production only by significantly increasing the amount of energy we generate from synthetic fuels and alternative energy sources.

Most of the critics of the synthetic fuels option have focused on the potential flaws in synthetic fuels. This is their right; however, they also have an obligation to propose substitute plans of their own. Those critics who do provide some sort of alternative typically admit that their alternatives probably will not work or could not be accomplished given the character of contemporary American society.

Responsible public policy formulation requires that each participant, citizen and politician alike, avoid recommending alternatives which are clearly insufficient or cannot pass when brought to a vote. Regardless of the apparent attractiveness of an idea, it is foolhardy and deceptive to promote such an idea when it will not succeed. Synthetic fuels can succeed if they are given a fair chance.

A fair chance means full-scale development through public and private cooperation for the next two decades. The result of such co-operation would be a fundamental reduction in foreign oil imports. The money saved would be released for expenditures on a wide variety of domestic items, which contribute to economic stability, an increase in employment, and a moderation of inflationary trends. Now is the time to begin. And this bill before us is the instrument with which we must start.

The PRESIDING OFFICER. Who yields time?

Mr. ARMSTRONG. Mr. President, I ask unanimous consent that I may proceed for 5 minutes on the time previously allocated to the Senator from Wisconsin. I state to the Chair that I believe that will be consistent with the wishes of the Senator from Wisconsin.

The PRESIDING OFFICER. Without objection, it is so ordered.

Mr. ARMSTRONG. Mr. President, today the Senate will vote on whether to create an \$88 billion Energy Security Corporation (ESC). The administration and the Energy Committee say such an agency is needed to stimulate an organized synthetic fuel production. Some proponents go so far as to suggest that a vote against ESC is a vote against synthetic fuel. Nothing could be further from the truth.

The Energy Security Corporation has considerable superficial appeal. The Nation needs synthetic fuel. And with OPEC becoming more and more intransigent, a crash program seems like a symbol of our moral and financial commitment to get unhooked from foreign energy sources. It is bold. Dramatic.

But the Energy Security Corporation is a seriously flawed concept. ESC would probably turn out to be one of the costliest boondoggles of all time. ESC would be likely to impede, rather than stimulate, synthetic fuel production. It also threatens seriously adverse environmental consequences.

MASSIVE GOVERNMENT BUREAUCRACY NOT NEEDED

The ESC is an idea which originated with people who have little or no direct experience in production of synthetic fuel. It is not supported by those who are knowledgeable of what it takes to stimulate meaningful production of energy from oil shale, tar sands, coal, et cetera.

During the last several months, the Senate Energy Committee and other committees of the House and Senate have heard much testimony from industry experts, economists, engineers, financiers, scholars and consultants. In effect, we have said to these authorities "what will it take to get synthetic fuel production moving?" Interestingly, almost none has suggested creation of the "Energy Security Corporation" or similar massive bureaucracy. Instead they have recommended measures designed to cut redtape and provide incentives for the private sector:

Fast track permitting process;
 Decontrol of oil and natural gas prices;
 Production tax credits—such as \$3 per barrel tax credit;
 Accelerated depreciation; and
 Guaranteed purchased plans or similar incentives.

INADEQUATE FINANCIAL CONTROLS

No one knows the ultimate cost of developing synthetic fuels. Consultants point out that the estimated cost per barrel of synthetic fuels is increasing rapidly. "Although there are many contributing factors . . . the most important single influence seems to be a steadily increasing knowledge of costs, as a result of more detailed engineering design," according to PACE consultants.

Synthetic fuel developed by the private sector will be subject to the stringent discipline of market economics. Many diverse areas will be considered. But only when individual firms or consortia are willing to risk their money on an idea will large sums be spent. Government administrators, on the other hand, often push expensive large scale programs when technological or economic factors do not warrant such development.

ESC IS NOT NEEDED

Hundreds of millions of dollars have already been committed by private sector companies to the production of synthetic fuel. Some companies say they are awaiting only the release of Federal lands for development. Another company states it will proceed at once with a large scale synthetic fuel production plan immediately upon the enactment of a \$3 per-barrel-tax credit which, as you know, has twice been approved by the Senate and for which there is growing widespread support in the House. Under the circumstances, it may turn out that creation of another large Government bureaucracy would slow down, rather than stimulate, existing and contemplated synthetic fuel production plans. After all, what company will proceed on its own to do something without subsidy the same task for which it might obtain subsidy?

INAPPROPRIATE ANALOGIES

ESC has often been compared with the Manhattan and Apollo projects. However, both of these projects had a single customer for their output: The U.S. Government. And for these projects cost and economic factors were not a primary consideration. There was no substitute product on the shelf that could be used if the new product turned out to be too costly. If the devices worked technically, the projects were deemed a success. But energy technology, such as synthetic fuel development, will be successful only if many individual users, each considering a different situation, decide that the new technology has market advantages over a wide array of alternatives available in the market.

POLITICAL CONSIDERATIONS

As long as the Government holds the purse string, ESC will be subject to political pressure. If past experience is any guide, there is

every danger that decisions of project funding and research will be heavily influenced by political considerations rather than sound economics and technology.

ENVIRONMENTAL CONCERNS

If the Government bulldozes ahead with large-scale programs, the impact upon the environment is likely to be far more adverse than if multiple, diverse, small scale efforts are undertaken within the discipline of the private economic market. A crash program—based on political rather than economic or technological considerations—is likely to have seriously adverse environmental and social consequences.

Can private sector develop synfuels without Government involvement? The answer is yes, and we have fact and precedent to support this point of view. All it takes is the Federal Government to provide the appropriate incentives. In this case, the appropriate incentives are exactly what industry says it needs to develop synfuels; even more astounding is the fact these incentives will save taxpayers billions over the needless incentives provided by the Energy Security Corporation.

Experts both inside and outside the energy industry stress that massive Government subsidies, loan guarantees, direct loans Government energy corporations and all the rest are not needed to develop synfuels. Rather, most experts say accelerated depreciation, production tax credits, and fast-track permitting are all that is needed to develop synfuels.

Canada offers the perfect example of how these so-called balance sheet incentives can effectively encourage synfuel development. Canada has massive oil reserves in its rich tar sand deposits. Rather than provide massive subsidies to its "syncrude project," the Canadians took two simple steps. First, the Canadian Federal Government guaranteed that the output of the syncrude plant would be exempt of any price controls. Second, the Canadians gave syncrude company officials accelerated depreciation; that is, allowed the company to write off its capital investment in 3 years instead of the conventional 13. Those incentives are exactly what the company said it needed to produce synfuel.

The result?

The syncrude plant is producing 100,000 barrels of oil per day from tar sands. The plant operates at a profit. Plans are now underway to further expand the facility.

The lesson here is obvious. Provide the necessary incentives, cut red tape, and synfuel will be developed, economically.

The Banking Committee does not have the proper jurisdiction to provide accelerated depreciation or production tax credits. Yet, the Banking Committee rejected the temptation to commit massive Federal subsidies to a crash program of synfuel development.

That is why I am pleased with the general approval of synthetic fuel development portion of the energy legislation recommended by the Senate Banking Committee. While I disagree with some provisions, I believe the Banking Committee's approach for developing synfuels is superior to other legislation pending in the Senate. To its credit, the Banking Committee rejected proposals to commit massive Federal funds to a crash program of synthetic fuel production; instead, the

committee worked toward the enviable goal of relying on the private sector, not the Federal Government, for synfuels development.

This bill achieves that goal in three ways: First, it provides limited financial assistance to competing private industry projects; Second, it does not create a massive new Government entity to administer the synthetic fuels program; Third, it directs all Federal agencies to expedite decisions on all energy development projects.

The committee wisely crafted legislation which recognizes that synthetic fuel by itself will not solve this Nation's challenging energy problems. And the committee recognizes that synthetic fuels development will be quite expensive and, at best, can only provide minimal contributions to our energy supplies through the early 1990's.

I regret the way some people are jumping to conclusions about how to develop the Nation's synthetic fuel resources. The assumption that "syn" fuel development justifies massive Government intervention in the private market is erroneous, in my opinion.

Again, I compliment the distinguished chairman of the Senate Banking Committee for the leadership he has shown in crafting the Banking substitute now before the Senate today. After careful study, I believe that a majority of my colleagues will agree that an Energy Security Corporation is a costly, unnecessary, and undesirable approach to the Nation's synthetic fuel needs and will, therefore, join me in voting for the more responsible, more moderate Proxmire amendment.

Mr. President, I shall summarize the situation, after a week of very interesting and productive debate on the merits of the synthetic fuel program which is pending before us, to be voted upon in about an hour.

The issues come down to this: First, there has been no credible showing of need, as to why we need to create a huge energy bureaucracy such as that contained in the Energy Committee's bill.

As has been brought out over and over again, the experts who have testified—that is, the people in industry, the private companies, the consultants, the economists, the financiers, the scientists, those who know the most about what it takes to produce synthetic fuels—say that we need accelerated depreciation, tax credits, fast track predicting, an end to redtape. I do not know of one who has said that what we really need is another Government agency to manage this effort. Not one has said that, to my knowledge.

Second, the costs which are suggested by the Energy Committee proposal are just out of sight. It is almost beyond belief that, at a time when budgets are tight and inflation is the most serious nonenergy problem facing this country, we would think in terms of an \$88 billion corporation. The recommendation of the Committee on Banking is for an initial \$3 billion, and certainly there is the possibility of increasing that next year and the year beyond, as we manage a careful, step-by-step approach to the problem.

Third—and I think this should be underscored—if we get the Government deeply involved in the decisionmaking process, there is the ever-present concern of politicizing the whole development of synthetic fuel in this country. It is at least open to question whether or not decisions will be made on the basis of sound economic considerations.

technology, and market forces, or, on the contrary, the whole process will be subject to the kind of political situations which have been characteristic of, for example, the Post Office or Amtrak.

Under the circumstances, it is no wonder that a very broad and diverse coalition of interests within and outside Congress have come forward in support of the Banking Committee proposal and in opposition to the proposal brought to us by the Committee on Energy.

Those who are backing the energy bill are from practically every segment of the energy economy, from practically every major environmental organization, and such groups as Common Cause, which came forward yesterday, for the first time, to comment on that matter.

I should like to read to my colleagues one paragraph from that very thoughtful analysis:

Both the Energy and Banking Committee bills are based on the need to fund synthetic fuel development. The fundamental difference between the two proposals is the way in which this goal is to be accomplished. The Energy Committee bill establishes a Synthetic Fuels Corporation, a quasi-independent body empowered to invest government funds in synthetic fuels. The Banking Committee bill funds synthetic fuels at a lower but significant level without the creation of a new government entity. Common Cause strongly supports the Banking Committee approach which has been offered as an amendment by Senator Proxmire.

Mr. President, I ask unanimous consent that the entire communication from Common Cause be printed in the Record.

There being no objection, the material was ordered to be printed in the Record, as follows:

COMMON CAUSE,
Washington, D.C., November 6, 1979.

DEAR SENATOR: Tomorrow the Senate will resume consideration of two versions of S. 932—the "Synthetic Fuels Corporation Bill" reported by the Energy and Natural Resources Committee, and the "Energy Financing Act" reported by the Banking, Housing, and Urban Affairs Committee.

Both the Energy and Banking Committee bills are based on the need to fund synthetic fuel development. The fundamental difference between the two proposals is the way in which this goal is to be accomplished. The Energy Committee bill establishes a Synthetic Fuels Corporation, a quasi-independent body empowered to invest government funds in synthetic fuels. The Banking Committee bill funds synthetic fuels at a lower but significant level without the creation of a new government entity. Common Cause strongly supports the Banking Committee approach which has been offered as an amendment by Senator Proxmire.

In our view, the need for a new entity to fund synthetic fuels has not been demonstrated. The testimony of many expert witnesses supports an expanded federal role in the promotion of synthetic fuels, yet few have suggested that a quasi-independent corporation is necessary to accomplish this goal. We believe that the problems inherent in the Synthetic Fuels Corporation created by the Energy Committee make it unacceptable.

The Synthetic Fuels Corporation—while subject to some accountability standards—is exempt from the application of key accountability laws which apply to other government bodies. For example, directors and employees of the Corporation are exempt from the important revolving door provisions passed last Congress. While the Corporation would be subject to some open meetings requirements, it is exempt from the carefully drawn Government in the Sunshine Act that applies to other federal agencies. Moreover, the independence of the Synthetic Fuels Corporation restricts the ability of the President to oversee and develop a comprehensive, coordinated energy program. Since the President has no power to direct the Corporation or to remove directors (except in cases of neglect of duty or malfeasance in office), the actions of the Security Corporation could be in total contradiction to the national energy policy. We believe that the Banking Committee approach avoids these problems and urge you to support the Proxmire amendment.

In addition, one of the most disturbing aspects of the Energy Committee bill is the low level of funding provided for conservation. While the Energy Committee bill does include many important and innovative conservation programs, they are not funded at adequate levels.

Use of synthetic fuels is only one possible way to reduce our dependence on foreign oil. Recent studies indicate that we could lessen our dependence on imported oil at a faster rate and to a far greater degree by seriously investing in conservation. Common Cause strongly supports amendments to be offered to the Energy Committee bill by Senator Paul Tsongas which would increase the funding for the Conservation and Solar Banks. We also urge that you oppose efforts to weaken the conservation provisions of the bill.

Common Cause believes that vigorous new government energy development and conservation efforts are necessary if we are to reduce our growing dependence on foreign oil imports. We urge you to support the Proxmire amendment and to support a major financial commitment to conservation and renewable resources.

Sincerely,

DAVID COHEN,
President.
FRED WERTHEIMES,
Senior Vice President.

Mr. ARMSTRONG. Mr. President, in an editorial this morning, the New York Times sums up the situation very well:

Synfuels may or may not be the best way to power our cars and heat our houses in the 1990's. We won't know until we try. But, as the Banking Committee suggests, we can try most economically by taking one step at a time.

The Times has hit the nail right on the head. I ask unanimous consent to have the entire editorial printed in the Record.

There being no objection, the editorial was ordered to be printed in the Record, as follows:

SYNTHETIC FUEL, NATURAL CAUTION

The prospect of synthetic fuels is alluring: all the oil and gas the nation needs for centuries, secure from foreign interference. But the potential costs of a rush to develop "synfuels"—the capital wasted on inefficient technology, the damage to the environment—are so great that caution is warranted. That is why the Senate Banking Committee now wants a program of Government-assisted demonstration projects before committing the country to a major production effort. Such prudence deserves support.

The initial push for a synthetic fuels program came from the House last June. Legislators on their way home for the July Fourth recess were eager to show voters that something—anything—was being done about the gasoline shortage. The result was a lopsided 268-to-25 vote authorizing \$3 billion in subsidies for synthetic fuels. President Carter then jumped ahead of what he thought was an unstoppable bandwagon. He asked Congress for a gigantic \$86 billion, 10-year effort to produce the equivalent of 2.5 million barrels of oil each day, enough to replace about 30 percent of the nation's imports.

The Senate Energy Committee's response, coming after the gasoline lines had disappeared, was less than the President asked for. It provided for only \$20 billion, to achieve a target of 1.5 million barrels a day. But this plan remained in spirit a crash program, including creation of an Energy Security Corporation with the power to press ahead with commercial development of synfuels.

The Banking Committee, which shares jurisdiction for synfuel financing, has been more cautious. At the urging of environmentalists and private business groups, it approved only \$3 billion to produce at most 600,000 barrels a day to demonstrate a broad range of technologies. Government would be limited to providing purchase and loan guarantees to private firms; no independent Energy Security Corporation would be established.

The Senate, which must now choose between these approaches, would be wise to take the Banking Committee's route. The basic technology for synthesizing oil and gas from coal is 40 years old. But no one has ever tried to use it on the

scale needed to make a dent in America's oil imports. It is hard to predict which technologies will be the cheapest or which will be compatible with worker safety and a clean environment. In committing the country to production on a commercial scale, Congress could endow us with a white elephant with alarmingly dirty habits.

The Banking Committee's approach need not delay creation of an efficient synfuel industry. It, too, calls for timely development of demonstration plants. But it would require the President to come back to Congress for approval of any big program costing tens of billions. If the development program is successful, additional funding should be no serious problem for a fuel-hungry America. If it isn't, why make it easy to throw good dollars after bad?

Synfuels may or may not be the best way to power our cars and heat our houses in the 1990's. We won't know until we try. But, as the Banking Committee suggests, we can try most economically by taking one step at a time.

Mr. ARMSTRONG. Mr. President, it seems to me that the conclusion is obvious. I hope all Senators will join me in backing Senator Proxmire's amendment and the Banking Committee's approach to developing synthetic fuels.

Mr. WALLOP. Mr. President, as a member of the Energy and Natural Resources Committee and as someone who has sat through numerous hours of hearings and markups on this subject, I wish to compliment the leadership of Senators Jackson, Johnston, and Domenici on this issue. Sadly I find, however, that I must rise in opposition to the synthetic fuels bill proposed by the Energy Committee.

Let me explain. We are asking the American people to take a gamble. The stakes are high. The ante is more than \$88 billion. For that size of sum we offer no guarantee that will solve the problem. Instead, we promise only a new Government corporation and a congressional willingness to try. Of and by itself that gamble under the present circumstances is laudable, clearly the country needs a gamble. But let us take a look at the odds and results. If this idea succeeds, we get a synthetic fuels industry that is capable of producing an uncertain amount of synthetic fuel. If we lose, we have led the citizens of this country down a primrose path that historians may call the biggest boondoggle in our history.

A number of informed witnesses have testified that the creation of the Synthetic Fuels Corporation may not be the most cost-effective means of bringing about a synthetic fuels industry. If Congress is right, the regulatory impediments and risks can already be minimized through the Energy Mobilization Board. The economic risks associated with unknown technologies can be reduced through the application of purchase price guarantees or loan guarantees. But neither an \$88 billion corporation, the Department of Energy, or any other organization can overcome the impediments of the laws of thermodynamics. That takes time and deliberative step-by-step solutions.

The magnitude of the Synthetic Fuels Corporation could stifle the administrative and managerial skills of any business entity—let alone the Federal Government. It is a colossal undertaking. This legislation authorizes the appropriation of \$88 billion to carry out the purposes of title I. Exxon, the leader of the Fortune 500 asset rankings, listed assets at \$38.5 billion. The assets of the Synthetic Fuels Corporation would be larger than the combined assets of this Nation's three largest corporations.

As a historical footnote, it is noteworthy to compare \$88 billion figure with the cost of other goal oriented projects. The transconti-

nental railroad cost approximately \$16 million. The Manhattan project was \$2 billion. The Apollo project, which put a man on the Moon, was \$23 billion. Even with inflation considered, the comparison is significant.

It is not that I am opposed to the concept of a synthetic fuels industry. Instead, I question the means which are proposed to bring it about. It has been stated in this debate, that industry has been unwilling to invest their abundant financial capabilities and technical expertise to build such projects. A recent report by Cameron engineers suggest that there is a flurry of activity in the synthetic fuels area by both Government entities and private business. In the March 1979 report, this organization lists ongoing synthetic fuels projects. The report reveals 26 oil shale projects for a combined cost of \$6.4 billion, 3 oil sand projects totaling \$11.3 billion, and 261 coal projects costing \$15.5 billion, are already underway without a multimillion-dollar Government corporation to shepherd and prod them into taking action. That is over \$32 billion already committed to synfuels in the private sector.

But let me speak in detail about my objections to a new Government corporation. I do not believe that the innovation of the synthetic fuel industry with its associated products, supplies, services, and processes can be efficiently financed, managed, and controlled by a Government corporation. It would circumvent the creative genius of America. Any large firms, including ones such as the Synthetic Fuels Corporation, tend to improve products that they are currently producing. But would they actually stimulate a market that can be easily integrated into our existing system? I believe not.

Xerox was not invented by an office equipment manufacturer. Transistors were not invented by a vacuum tube producer. The ballpoint pen was not invented by a pen producer. The hydromatic auto shifting mechanism was not invented by a Detroit automotive firm. In fact, Chester Carlson, the inventor of xerography, approached 20 office equipment manufacturers unsuccessfully. He finally found financing elsewhere.

It is my concern that ideas competitive to those selected by the Synthetic Corporation may be simply buried and never heard from again. And let us assume for the moment that many of the products brought on line in the Synthetic Fuels Corporation are not compatible to the local framework of use and distribution. Then, there is always the possibility of coercive measures being applied to end-users to force them to incorporate them into their systems.

To meet a production objective of 1.5 million barrels of oil per day, would require the building and operation of 30 synthetic fuels plants, each producing an average of 50,000 barrels per day. At present, only the Canadian tar sand plants can operate at this level of production. The coal liquids production in South Africa is on a much smaller scale. It is generally agreed that even where synthetic fuel technology has actually been demonstrated, substantial new problems in commercial plants of a technical, economic or environmental nature, are most effectively met in a competitive private environment, and not in a "dollars are of no consequences" public corporation.

The goal of the Synthetic Fuel Corporation may be unrealistic for reasons the committee has not considered. The 30 sites required to produce 1.5 million barrels per day of oil by 1995 may simply not be available as fast as the Energy Security Corporation would be willing to spend money, even with the help of the Energy Mobilization Board. The availability of raw materials, water, transportation, construction resources, and skilled manpower would be real constraints to accelerated siting decisions. The ESC has no way to overcome these problems. The temptation will be to commit ever larger sums of money.

It has been stated that the Synthetic Fuels Corporation is necessary for a fast and effective start "out of the blocks." I believe, however, that the administrative restraints on this new Corporation have been underestimated. Remember, this is not some obscure new Federal agency we are creating. It is more than twice the size of the Nation's largest corporation. By-laws must be proposed, studies must be debated and adopted for a variety of new and complicated procedures. Rules must be set up to solicit contracts, to standardize bookkeeping procedures for both the corporation and the participants in the financial incentives program. There must be procedures to solicit, competitive bids, to purchase ongoing projects, to acquire and dispose of assets, and to assure that small businesses are accorded a proper share of the benefits.

A judicial arm must be assembled to effectively negotiate patent rights, exclusive and nonexclusive licensing, constraints and cooperative agreements to enable the Corporation to work with existing Federal agencies. Employees must be hired, training programs implemented, benefit plans negotiated, office space acquired and furniture bought.

Admittedly, some problems appear more cumbersome than others. The point is that there is much administrative work which must be completed before one drop of synthetic fuel is produced or indeed one contract let. Only after the organization is assembled, do they face the complicated problems of overcoming the technical barriers to synthetic fuels production.

It has been stated, Mr. President, that those of us who oppose the Corporation are afraid to take bold new steps to solve our energy crisis. I reject that, there are bold alternatives available, but I am not quite sure whether I am more troubled by the possibility of failure or the possibility of success with the ESC.

If it fails, the consequences are obvious. We would have assured the American taxpayer that something was being done about the energy dilemma even though we erred. There would then be the lingering debate over what opportunities we lost by not spending the money elsewhere.

But if it succeeds, it may well be a mixed blessing. It will certainly be hard to wean a fledgling industry from the benefits of its mother corporation. As we have all seen, once special interest groups have slurped from the Government trough, it is hard to pull them away.

Let us not kid ourselves that \$88 billion from a benevolent Government corporation will not, in itself, create a substantial political following. But that will not be the only argument to keep it going. Let us

assume that the goal of 1.5 million barrels per day is achieved by 1995. That would be less than 10 percent of our current consumption of crude. It will represent an even smaller percentage in the year 1995. So there would be a natural inclination to say "let's keep it going." Why not let the Corporation run until we can produce 3 million barrels per day or 6 million or 9 million barrels per day?

And let us not overlook the often used adage against the Federal Government getting deeper involved in mineral extraction in the public domain. It goes something like this: "If you love the Post Office, you'll love a Federal oil and gas company." That makes good sense but if this powerful Synthetic Fuels Corporation is moderately successful, that argument becomes mute. In fact, the Corporation would become a natural receptacle for other attempts to involve the Federal Government in energy exploration and development.

In closing, Mr. President, I do not want to leave the impression that I view the Corporation idea as pure heresy. All of us in public life have experienced the pressure on our system of government as we come to grips with the realities of dwindling resources. Gasoline allocations, coal conversion legislation, and mandatory mile per gallon standards are all subtle indicators that our political and economic system is slowly changing. The demands of the 1980's will undoubtedly add more constraints and pressures to our democratic system. We will be asked to resolve conflicts between higher energy cost against the ability of many of our citizens to meet those expenses. We will be asked to weigh the basic rights of citizens against the common good. We will be forced to look at more Government involvement. They are not problems for the future—they are here now.

There are many avenues that can and should be tried before we launch an extensive program such as that proposed by title I of the Energy Committee bill. Right now the Nation should proceed with energy price decontrol, expand the DOE synthetic fuel program, and place renewed emphasis on the potential for near-term solutions, such as conservation and the development of renewable resources. Such an approach is both cheaper and quicker and every bit as effective.

Mr. JOHNSTON. Mr. President, I simply wish to make clear there has been an issue raised on the floor which is totally a red herring issue, and that is the question that we have the intention of having this be an \$88 billion program. Nothing is further from the truth. We have tried to make it precisely clear in the bill.

Nevertheless, because of the concern that some Senators have stated, we are prepared to make it clear in amendments to be adopted after this vote that as to phase 2 which contains the difference between the \$20 billion in phase 1 and the \$88 billion, that phase 2 may not be embarked upon until affirmatively approved by resolution of both Houses, adopted pursuant to expedited treatment. So, in other words, there can be no money authorized, appropriated, or otherwise obligated beyond phase 1, the \$20 billion, until and unless both Houses, the House and Senate, concur in a resolution which resolution would fix the amount.

So we want to make that clear, and I have a "Dear Colleague" letter and I ask unanimous consent that the "Dear Colleague" letter from myself and Senator Domenici be printed in the Record.

There being no objection, the letter was ordered to be printed in the Record, as follows:

COMMITTEE ON ENERGY AND NATURAL RESOURCES,
Washington, D.C., November 7, 1979.

DEAR COLLEAGUE: Many of you have inquired about the second phase of the Synthetic Fuels program in the Energy Committee's bill. We certainly did not intend the second phase to proceed without specific Congressional approval.

In order to clarify this situation, we, the Floor Managers of the bill, will, if we prevail with the Energy Committee's bill, offer an amendment which will do the following:

1. Extend the period for the first phase from three years to five years, after which the Congress will have the power to give a "go" or "no go" on second phase development.
2. The one and one-half million barrels of oil a day equivalents and the \$88 billion are goals and targets for the total program.
3. The Board of Directors will present the comprehensive strategy for Congress's approval and, simultaneously therewith, will recommend the appropriate funding levels for phase two, which both Houses of Congress will have an opportunity to approve or disapprove under expedited legislative processes. None of the additional \$88 billion may be obligated unless authorized as above and appropriated by the Congress.

J. BENNETT JOHNSTON.
PETE V. DOMENICI.

Mr. DOMENICI. Mr. President, will the Senator from Louisiana yield 1 minute to the Senator from New Mexico?

Mr. JOHNSTON. Yes.

Mr. DOMENICI. And then we wish to yield to Senator Durenberger as soon as I finish, if that is all right.

Mr. JOHNSTON. Yes.

Mr. DOMENICI. I concur. It was never our intention that phase 2 of this program be anything automatic. As a matter of fact, I have drafted a proposed amendment, and I am on the colleague letter that the Senator has referred to.

We want that \$88 billion and a million and a half barrels to be targets and goals for America, and our board of directors will analyze it as they proceed through phase 1 and they will make recommendations to Congress, both on the program for the second phase and the level of funding. We did not intend that in one shot here without further congressional involvement we were approving an \$88 billion program. Indeed, we thought it could be vetoed by Congress and certainly it has always been subject to appropriation.

But since much has been made of that issue, we thought we should clarify it here today.

Mr. JOHNSTON. Mr. President, I yield 5 minutes to the Senator from Minnesota (Mr. Durenberger).

Mr. DURENBERGER. Mr. President, I have listened with great interest to the comments of both the Senator from Louisiana and the Senator from New Mexico about what they propose to do if the Energy Committee's proposition prevails this afternoon, and I have also asked the Senators certain questions that relate to my concerns about the Energy Security Corporation and the Energy Committee bill.

I wish to ask several questions of the Senators that relate to their comments.

First, I have a summary response from each of the Senators before me to my own concerns, and I wish to ask the question, first, as to

the time period for phase 1 contemplated by the Senator's amendment. Is it the Senator's intention that the time period be extended beyond the 3 years originally proposed in the bill as it came out of the committee?

Mr. JOHNSTON. I say to the Senator that we will extend the period for giving the comprehensive report to a period of 5 years. Actually the phase 1 period of the bill is 10 years; that is, during the period of 10 years they can obligate money, so when we are talking about this \$20 billion phase 1 that will be spent and obligated over a period of 10 years. The 3-year period for the comprehensive report in the amendment to be offered after the next vote will be extended to 5 years, as the Senator from Minnesota and others has requested.

Mr. DURENBERGER. Under the amendment as the Senator will propose it, may I ask what parliamentary status will attach to the phase 2 plan when it is presented to Congress? In other words, will it require the approval of only a single House, or of both Houses, before additional expenditures will be authorized?

Mr. JOHNSTON. Both Houses will have to approve, I say. Both the House and the Senate must approve it and they must fix the amount not to exceed an additional \$68 billion. So if they do not act at all, there is no money that can be spent or obligated. If they do act, they can fix the amount up to \$68 billion or at some lesser figure.

Mr. DOMENICI. May I say the Senator was specifically concerned about this because he wanted Congress to take a good look at the second phase and the amendment which we have told the Senator about will make two recommendations. The corporation will recommend the plan and the level of funding, both of which must be approved or modified by both Houses of Congress.

Mr. DURENBERGER. Will it be possible to amend that plan in committee or on the floor of the Senate?

Mr. DOMENICI. Indeed it will.

Mr. DURENBERGER. Will there be any time limit on the period for approval of the plan?

Mr. DOMENICI. Yes; our proposal will provide for the expedited procedure as provided in that bill, which is 60 legislative days, and it must be presented to both bodies in ample time for approval or modification to take place, or for refusal to accept.

Mr. DURENBERGER. In what way will the plan differ from any other authorization bill considered by Congress?

Mr. DOMENICI. Only as to the expedited process, and I say to my good friend that the bill as drawn provides that the second phase funding has to be appropriated. That remains. So if it is appropriated, also, besides being authorized under the expedited procedure. Both are in.

Mr. DURENBERGER. I believe the next question may have been answered in part by the Senator from Louisiana. But I appreciate the reaction also of the Senator from New Mexico. How will the proposed amendment affect the \$88 billion authorization contained in the bill as reported by the committee?

Mr. DOMENICI. I say to my good friend from Minnesota the \$88 billion remains in the bill as does the million and a half barrel equivalence as national targets or goals. The figure, however, is sub-

ject to a recommendation by the board. It cannot exceed the \$68 billion that remains after the first \$20 billion. But it can recommend less.

Mr. DURENBERGER. What is the role, as the Senator understands it, of the targets, the \$88 billion and the 1.5 million barrels, in designing the phase 2 plan?

Mr. DOMENICI. When phases 1 and 2 were designed, the \$88 billion was the best economic assessment of what it might cost to get to the million and half barrels a day based upon those economic facts at that point in time. So the dollar figure continues to be a target or a goal, just the million and a half barrels.

Mr. DURENBERGER. The last question: Will the Senator be willing to take the Energy Security Corporation out of the bill and let another agency of the Federal Government do the phase 1 and phase 2 recommendations that are contained in the Energy Committee's recommendation?

Mr. JOHNSTON. May I say to the Senator from Minnesota that I believe that the Energy Security Corporation, which has independence, is an essential part of our concept. I hope the Senator will keep in mind the fact on this board, a five-member board, we will be able to get people who have experience not just in energy, but in banking and in industrial enterprises, as opposed to the Department of Energy, which has career-type bureaucrats, and I do not use the word "bureaucrat" in an altogether disparaging manner except those career bureaucrats, almost by definition, do not have experience in business, banking, and in the business venture.

We think that having a Security Corporation which has independence from the change in election, independence from the change in mood of Congress, and these high-type experienced business people will better be able to deal with it than the Department of Energy. It is that history of on-again off-again start and stop that has prompted the administration to propose not to endorse the idea of a separate corporation.

I think it is a better way to do it.

Mr. DOMENICI. Let me say, Senator, I think we have almost nothing until we have a separate entity with its own goals, limited by congressional power as this Corporation is, and it is not because the Department of Energy is working. If we had a working, effective Department of Energy, I submit you cannot make these kinds of business transactions with bureaucracy. Whether it is good bureaucracy or inefficient bureaucracy you cannot make \$2 billion and \$3 billion multi-year transactions unless you are dealing with something that is distinguished from Government. So I think it is absolutely imperative that we have it.

Mr. DURENBERGER. Mr. President, I thank the Senator from Louisiana and the Senator from New Mexico for their sensitivity to my concerns and for the responses to the questions I have posed.

I thank the Chair.

The PRESIDING OFFICER. Who yields time?

Mr. HART. Mr. President, will the Senator from Louisiana yield for a question?

Mr. JOHNSTON. On the Senator from Wisconsin's time. We are about out.

Mr. PROXMIER. Mr. President, I yield the Senator 2 minutes.

Mr. HART. Is not the issue of the Energy Security Corporation, in response to the Senator from Minnesota's question, not how to get around the bureaucracy but around the Congress, and that is where the Energy Committee's structural proposal is faulty. The on-again-off-again is not the fault of the Department of Energy or the so-called bureaucrats. It has been the Congress. If you look at the history of oil shale research and development, it has been the Congress that has been on-again and off-again.

Mr. JOHNSTON. I would disagree with the Senator.

Mr. HART. What many of us fear with the Energy Security Corporation is not its getting around the bureaucracy but getting around the Congress of the United States. What the Senator from Minnesota is afraid of he should be afraid of. Even though there are these pro forma ways of coming back for approval of \$88 billion, you are still trying to bypass the Congress.

Mr. JOHNSTON. I would disagree with the Senator. It has been the Executive at least on two occasions who has stopped ongoing Government programs. In 1930 President Hoover issued an order, an Executive order, withdrawing further lands from oil shale lease and terminating that program which had been begun in 1920.

Secretary Kleppe, under the Ford administration, also issued three prototype leases and then later that program was terminated by Secretary Kleppe.

It is true that Congress shares that responsibility for on-again-off-again. In 1975 the Senate passed a synfuels bill which was killed in the House. So we share our complicity in that on-again-off-again.

The PRESIDING OFFICER. The Senator's 2 minutes have expired.

Mr. HART. I do not see how the Energy Security Corporation is going to avoid the on-again-off-again of the administration either.

The PRESIDING OFFICER. Who yields time?

Mr. JOHNSTON. Mr. President, I yield 5 minutes to the Senator from Idaho.

The PRESIDING OFFICER. Does the Senator from Idaho wish recognition?

Mr. McCURE. Mr. President, I thank the Senator for yielding this time.

I take this time only to indicate that the junior Senator from Idaho has had a very difficult time arriving at a decision as to what to do in the various alternatives that are presented to us. Part of that lies in the diametrically opposite approach to the problem of how we should get there, and the other is the rather difficult parliamentary situation in which we find ourselves, and I understand how we got into that parliamentary situation, in which the people who are proposing either of the two major alternatives are promising people that "you vote with me and I will change it."

That, very frankly, is where the Senator from Idaho finds himself in the belief that neither measure is perfect. Each measure has some strength, and each measure needs some strengthening in some areas. As those changes are made the two come closer and closer together.

If, as a matter of fact, the Banking Committee does what I have heard them say the proponents will do, and that is increase the amount

of money that is available under this and, at the same time, the proponents of the Energy Committee measure shrink the amount of money that can be committed without congressional approval, we come very close to the same position with respect at least to one of the items in contention.

Mr. President, after a great amount of thought and consideration regarding the best way to develop the synthetic fuels in the United States, I have decided that the Energy Committee rather than the Banking Committee substitute is a better approach. Accordingly, I rise now in support of the Energy Committee bill and urge my colleagues to defeat the substitute.

My decision is based on two fundamental conclusions: First, the substitute does not—and I repeat does not—provide an adequate approach to insure that we proceed with all deliberate and reasonable speed to develop our domestic energy resources in the next decade.

Second, the Energy Committee bill, including the synthetic fuel corporation, provides a positive approach to the timely and well-reasoned development of a synthetic fuels industry.

Additionally, unlike some of my colleagues and friends in this body, I am convinced that the Energy Security Corporation concept can be and will be closely limited and restricted to prevent any abuses of authority or misdirection into a Federal oil and gas corporation. In fact, at the appropriate time I will offer a series of carefully drawn amendments to buttress and strengthen the existing limitations and restrictions on the corporation in the Energy Committee bill to insure that the corporation is a limited financial assistance mechanism.

I also am satisfied that both the requirements for separate appropriations for phase 2 and the amendments for an effective reauthorization in 5 years that the managers will offer will assure the phase 2 and that the full \$88 billion will be completely subject to another affirmative policy decision, both in a reauthorization and another appropriation.

Mr. President, in a separate but related development on the floor of the Senate when we had to do with the question of setting up an energy security reserve system of \$20 billion, I opposed that move because it seemed to me that we should not be identifying, in advance of appropriation, moneys that have not yet been authorized or appropriated. But the Senate and the Congress in their wisdom have decided that is the direction to go, to identify a sum of money that is going to be committed in the future—it is not committed but it is a prime—and I think think that similarly a \$88 billion program here is perhaps a little unwise—will the Senator yield 2 additional minutes?

Mr. JOHNSTON. I have 16 minutes left and I have about 20 minutes allocated.

Mr. McCLURE. One minute?

Mr. JOHNSTON. I will only do this for the distinguished Senator from Idaho because he is speaking in support of our bill.

Mr. McCLURE. I thank the Senator and I will not take further time thanking him. I will do that without charging the time.

But I am convinced that unless we get on with the business of producing energy in this country our consumers are going to continue to pay extortionate rates for the energy that the whole world knows now can be charged to the American consumer.

There is only one way that I know of to solve that problem and that is to get on with the business of producing energy in this country and almost without regard to what the cost is, because it is going to cost us less to produce it here than it is not to produce it and lay ourselves open to the extortion of foreign producers.

The PRESIDING OFFICER. The time of the Senator has expired.

Who yields time?

Mr. PROXMIRE. Mr. President, I yield 1 minute to the Senator from Michigan.

The PRESIDING OFFICER. The Senator from Michigan is recognized.

Mr. LEVIN. Mr. President, I thank the Senator from Wisconsin for yielding.

I first want to thank the Senator from Louisiana for his clarification this morning of a number of matters which, I think are very important, including making it clear that the \$88 billion is not an authorization but simply going to be stated as a goal, and I thank him for other clarifications.

I do have one question I would like to squeeze in, however, and that is if at the end of 5 years the Energy Security Corporation did not have sufficient information to come up with a comprehensive plan, would the Senator be willing to accept an amendment later on which would permit them to seek an extension of that time, and unless disapproved by Congress, to have it so they would have sufficient information upon which to base a comprehensive plan?

Mr. JOHNSTON. Certainly; it is not our intent to rush them into judgment prematurely. The idea of the 5 years is that we want an answer to the program outlines at least by that time; that is, at least a report on what they have done by that time. But, of course, if they are not ready to make a final judgment on which direction the program should go in, they should have that time and we will accept such amendments.

Mr. LEVIN. I thank the Senator, and I thank the Senator from Wisconsin again.

The PRESIDING OFFICER. Who yields time?

Mr. DOMENICI. Mr. President, I wonder if the Senator will yield 4 minutes at this point. Does he have 4 minutes for me?

Mr. JOHNSTON. Mr. President, I yield 4 minutes to the distinguished Senator from New Mexico.

Mr. DOMENICI. I want to make a couple of remarks about the statements of the Senators who have addressed the issue this morning. I did not get a chance to read the entire statement of the distinguished Senator from Maine, but I commend him. Apparently he is not going to vote for the Energy Committee version, but he quite properly indicated why the Banking Committee bill will not work. The level of funding is inadequate and, obviously, the diversification of technologies will not come forth from that bill. That is true. He is right. I wish he could then conclude that ours is the approach to get us there, because we think it is.

I have had a chance to review the record of the opening day's debate on title I, S. 932, the Energy and Natural Resources Committee's recommendations on a synthetic fuels program, and I am struck by several things.

First, I am struck by the fact that, despite what proponents of the Proxmire amendment contend, the amendment they have offered will

not produce any synthetic fuels. I suspect that this is why the anti-synthetic fuels organizations in this country have rallied behind the Proxmire amendment. I suspect, also, that those big oil companies who do not want any competition in the energy-producing business have rallied behind the Proxmire amendment for exactly the same reason.

Oh, I know that my friend from Colorado (Mr. Armstrong) will take strong exception to my contention. He says he is a friend of synthetic fuels. So, I must ask him directly, as a friend of synthetic fuels, why he supports a bill that will lead to a synfuels capacity, at most, of two plants. That is right: The Banking Committee bill, under the most generous interpretation, will give us only two plants. When one looks for example, at the Badger Engineering study for the Department of Energy, one finds that a commercial-sized coal to gasoline plant will cost about \$4.3 billion in constant dollars. The Banking Committee's bill will involve \$3 billion. Give them all allowances—assume that all \$3 billion will be in the form of loan guarantees—and you reach \$9 billion in financial power, since they permit you to multiply by three. If you go for the kind of plant I have just described, you do not even have enough money; you do not even have enough money for it and there would be nothing left over for the great variety of plants that we must have. That will build two commercial-sized plants of the kind that Badger Engineering has proposed.

Mr. President, this is not a time for timidity. This is not a time to be afraid. This is a time to act.

So, it is very simple for the Senate to put into perspective the Banking Committee bill: It is a popgun response to the moral equivalent of war. If the Banking Committee had been running the war of independence, we would all still be British subjects. And, I am sure the chairman of the committee would be trying to reassure us that if we just leave everything alone, if we just follow "business as usual," well, those evil British will just go away and let us be free.

Let us get serious about this. Iran is tottering. The highest councils in the land, and in the world, are meeting as Iran goes through yet more turmoil. And, some Senators sit here and try to contend that the Proxmire amendment will help us avoid these uneasy days and nights in the future.

To summarize, a vote for the Proxmire amendment is a vote to kill any kind of significant synthetic fuels program.

I am struck, secondly, by the inability of the proponents of the Proxmire amendment to decide among themselves what they want. The amendment has \$3 billion, but the Senator from Wisconsin says he knows that is not enough money. The Senator from Colorado says he suspects that we do not need any Federal money. I suspect that the two Senators, at the end of this entire debate, may not agree on what they want.

Third, I am struck, I would almost say, thunderstruck, by the support of my good friend from Colorado (Senator Armstrong), for a bill, the one proposed by the Banking Committee, that would continue price controls. I am sure that surprises him. But, yes, the Banking Committee bill, on pages 27 and 28, for example, in section 103, imposes price controls on tar sands and heavy oil production. Is the Senator from Colorado advocating this approach? and, if he is not, why is

he supporting the Banking Committee in its efforts to gut the Energy Committee's synthetic fuels program?

Next, I am astounded that the Senator from Colorado would advocate to those of us who have so often supported him, and often worked closely with him, that we support an amendment that will pour more money into an already-discredited bureaucracy. We have offered him an approach that will put a businessman at the head of a lean and responsive corporation, a businessman who knows the ins and outs of finance and risk-taking, and he is asking us to, instead, adopt the Proxmire amendment that will put a civil servant in the position of negotiating contracts with multibillion-dollar firms.

I only wish he would talk about this facet of our approach to his many friends in the synfuels industry. I think he would find that they would unanimously agree with David Goodman of the Morgan Stanley financial house, who said, and I quote:

To make the program work, the decision-making will have to be crisp, hard-nosed and attuned to the needs of business. A regulator's mentality would be anathema to the purpose of the program... On balance, I conclude that a separate, government-owned corporation with a limited life, such as is contemplated by the legislation, is probably the best way to go.

To conclude my analysis of the Proxmire amendment, I will point out what it does:

It guarantees that no more than 2 commercial-sized synfuels plants will be built;

It pours more money into those very agencies of Government that have already said, in writing, that they cannot handle a commercial program of significant size in synthetic fuels;

It will put a bureaucrat, instead of a businessman, in the position of trying to negotiate complex, multibillion dollar deals with the private sector;

It restores price controls on production from tar sands and heavy oils, in direct contradiction of every tenet of good economics;

It guarantees that only the very biggest firms in the world, and perhaps only three or four of those firms, will be able to develop synthetic fuels, thus extending the monopoly on energy production even further;

And, as the antisynthetic fuels groups have recognized it will be a vote against synthetic fuels.

Yes, that is the Proxmire amendment. That is what the Senator from Wisconsin believes is the proper response to the gravest national crisis this country has faced since World War II. The Proxmire amendment does nothing for synthetic fuels; it does nothing to give us hope for eventual energy self-sufficiency; it does nothing to prevent us from staying prey to the fragile supply of oil from abroad.

To vote for the Proxmire amendment is to wave the white flag of surrender in this war for energy security, in this war for national security.

The Energy Committee, knowing that timid responses are worse than no response at all, has taken a bold, new course.

We have advocated \$20 billion in funding, in the form of obligational authority.

We have advocated that a businesslike approach be taken, where an experienced businessman will deal with other businessmen in this complicated and expensive world of synthetic fuels.

We have given this businessman flexible forms of financing, as every expert advocated, so that firms of all sizes can compete in producing synthetic fuels.

We have given our Corporation a definite lifespan, so that no permanent, new bureaucracy be formed.

We have offered a two-staged approach, where the Congress will have the power to say "no," if it wishes, after the first phase. Under our approach, Congress must act twice if any further money beyond \$20 billion is to be obligated. Congress must first approve the comprehensive strategy report for the second phase that the Corporation will submit to us. And, secondly, Congress must then actually appropriate the moneys required.

This Senate has the power to confirm or reject appointees to the Corporation's Board of Directors.

None of this—repeat, none of this—exists in the Proxmire amendment.

I think the real key, as I said at the outset, is to look at who supports the Proxmire amendment. It is supported by groups who have vowed to kill synthetic fuels. It is supported by organizations representing companies who do not want competition from synthetic fuels production in the hands of smaller firms. And, it has been offered by the very Senator who helped kill a similar approach 4 years ago.

It appears to be antisynthetic fuels. It smells like it. It walks like it. I can only conclude that, as some of the organizations supporting it contend, it is antisynthetic fuels.

Adoption of the Proxmire amendment would please those who are against synthetic fuels, of course. But, adoption of this amendment would please even more those foreign nations who now hold America energy hostage. Remember that, it would please those nations who now jerk this country around like a puppet on a string.

So the Senate has a chance to send a clear signal overseas. We can adopt the Energy Committee recommendations and send a signal that we are serious about energy self-sufficiency. Or we can adopt the Proxmire amendment and send the signal that we will lie idle and helpless, while our economy is ravaged and our society disintegrated by our energy ignorance.

In conclusion, I repeat that the Proxmire measure, if it is adopted, will guarantee that no more than two commercial-sized synthetic fuels plants will be built; it pours more money into those very agencies of Government that have already said, in writing, that they cannot handle a commercial program of significant size in synthetic fuels.

Mr. President, it just seems to me that we have reached the time to make some decisions. We do not need any more time to consider whether or not we need synthetic fuels. Senators have said on the floor we need time to analyze. We do not need any time to analyze. The time is too late already. We do not need any research and development in synthetic fuels. We need development of synthetic fuels.

The time has come when the American people properly expect us to get on with developing the 700 billion barrels of oil tied in shale and

the 300 years of coal that are locked in the American hinterland. They do not expect us to continue forever to make excuses.

My last point is this: There are those who say that this is more bureaucracy. I would ask, if you put it in the Department of Energy, are you not going to have to hire people to do this work? Does somebody expect it is going to be done by nonpeople? We say put it in a separate entity with business people that can work with business people, not in the Department of Energy, which cannot get the job done.

The PRESIDING OFFICER (Mr. Hart). The Senator's 4 minutes have expired. Who yields time?

Mr. JOHNSTON. Mr. President, how much time remains on both sides?

The PRESIDING OFFICER. The Senator from Wisconsin has 17 minutes. The Senator from Louisiana has 11.

Mr. PROXMIRE. Mr. President, my problem is that the people that I have who are going to speak, as often happens, are not available at the moment. So I will take a little of my time right now, Mr. President.

The PRESIDING OFFICER. The Senator from Wisconsin.

Mr. PROXMIRE. Mr. President, the Senator from New Mexico keeps harping away at the suggestion that we have only \$3 billion in the bill—of course, that is a whale of a lot of money—and that \$3 billion means 1½ plants, 2 plants, or something of that kind.

Mr. President, as we have tried to point out over and over again, that \$3 billion we are perfectly willing to amend, to increase the amount. Furthermore, the \$3 billion is only the beginning. It translates into \$9 billion of guarantees; and furthermore, we would guarantee 75 percent of the plant. Therefore, in effect, so far as a guaranteed plant is concerned it translates into \$12 billion.

As I say, we are going to beef that up, just as the distinguished Senator from New Mexico and the distinguished Senator from Louisiana have conceded they are going to change their bill if they prevail.

They made, I must say, a very interesting and useful concession, but it completely contradicted what was brought out on the floor in the initial debate on this matter. They initially indicated that \$68 billion was going to be triggered automatically by the report, if the report was not disapproved. Now we have quite a different situation, a situation in which that report has to be approved affirmatively, as I understand it—and I hope they will contradict me if I am wrong—by the Congress. That makes some difference. It is a help.

However, I would point out that the Energy Committee bill still leaves unamended Government-owned, contractor-operated plants, and I think it is clear why those are so resented and opposed by the private sector. It still leaves the Synthetic Fuels Corporation, which would be free, as the Senator from Colorado pointed out so well, from the protections provided by the Federal procurement laws, from the Administrative Procedures Act and other safeguards that we have. The amended Energy Committee substitute would still leave authorization for joint ventures between Government and industry on pilot plants.

Mr. President, I would point out to the Senate that the Banking Committee substitute is supported very solidly by the business community. The Committee for Economic Development, a most enlightened business group that has been studying synthetic fuels for 2 years,

has come down in support of our amendment. The National Federation of Independent Business, their first poll showed 58 percent of their members to be opposed to the Energy Security Corporation, so they were asked to poll again. They polled again, and it showed 80 percent of their membership throughout the country, in every single State, opposed to the Energy Security Corporation.

Conservation organizations are solidly behind the Banking Committee amendment. They recognize the adverse effect this can have. The National Coal Association Common Cause has been added to this list.

Mr. President, a few minutes ago a Senator said he was very concerned about the notion that the reason the industry favors our approach is that they are afraid of competition. Mr. President, there is something to that.

We should be very aware of what they are concerned about. I think it is a very legitimate concern.

What happens if we come in with a crash program that demands 24,000 more professionals, in a field where they only have 45,000? Where do we get them from? Any industry, whether oil, coal, or whatever it is, requires trained specialists, and if the Government takes them for a crash synfuels program, it is going to hit every sector of the economy very hard.

What happens to the equipment available, and to the people who produce the equipment? There again, the costs are going to go sky high. The inflationary effect of the Energy Committee bill is transparently very clear. The term used in the Pace Co. report prepared for Senator Hart's task force was "hyperinflation"—there could be hyperinflation in the construction industry if we adopt the Energy Committee substitute.

The Senator from Louisiana has already referred to the editorial in the New York Times. I would like to read another part of it, because I think it is a very timely observation. The New York Times, as we know, has no vested interest here. I think it is the outstanding newspaper in the United States, a highly objective and competent paper, with an outstanding and brilliant editorial staff. I will start at the beginning:

The prospect of synthetic fuels is alluring: all the oil and gas the Nation needs for centuries, secure from foreign interference. But the potential costs of a rush to develop "synfuels"—the capital wasted on inefficient technology, the damage to the environment—are so great that caution is warranted. That is why the Senate Banking Committee now wants a program of Government-assisted demonstration projects before committing the country to a major production effort. Such prudence deserves support.

The Senate Energy Committee's response, coming after the gasoline lines had disappeared, was less than the President asked for. It provided for only \$30 billion, to achieve a target of 1.5 million barrels a day. But this plan remained in spirit a crash program, including creation of an Energy Security Corporation with the power to press ahead with commercial development of synfuels.

The Banking Committee, which shares jurisdiction for synfuel financing, has been more cautious.

The editorial goes on to say:

The Senate, which must now choose between these approaches, would be wise to take the Banking Committee's route. The basic technology for synthesizing oil and gas from coal is 40 years old. But no one has ever tried to use it on the scale

needed to make a dent in America's oil imports. It is hard to predict which technologies will be the cheapest or which will be compatible with worker safety and a clean environment. In committing the country to production on a commercial scale, Congress could endow us with a white elephant with alarmingly dirty habits.

Mr. President, I think we ought to keep in mind the fact that while synfuels are very important and we should do all we can to encourage them, the fact is that of our total energy needs synfuels will supply at best, if we meet the goal the Energy Committee sets, about 3 percent, compared to solar which could provide about 20 percent compared to conservation, which could also make substantial contributions to our energy needs. To go ahead with a program which is highly inflationary, which is opposed overwhelmingly by experts in the business community who have experience with this, and which is opposed by such objective outside experts as the New York Times, I think is a mistake. I am happy to yield 5 minutes to my good friend from Pennsylvania.

Mr. HEINZ. Mr. President, I thank the Senator from Wisconsin, my distinguished colleague and chairman of our committee for yielding.

Mr. President, I express my strong support for the amendment offered by the Senator from Wisconsin which substitutes title I of the bill reported by the Banking Committee for title I of the Energy Committee's legislation. The debate on this amendment has covered the issue of the need for Government assistance to develop a domestic synthetic fuels industry thoroughly. I would like to add, however, before the Senate votes, my reasons for supporting the Banking Committee position and my perception of the crucial substantive issues in this debate.

First, I would like to make it understood that I support efforts to encourage the development of technologies which will enable us to utilize more extensively domestic resources to meet our energy needs. However, I do not believe that it is necessary to commit the Federal Government to a massive program, both in terms of funding and Government authority, as I believe the Energy Committee version of this bill does.

In addition, I would like at the outset to respond to those who have criticized the Banking Committee for being unrealistic in its approach by providing only \$3 billion to fund the program. Comments which suggest that this is an inadequate sum to fund the projects authorized in the bill and to undertake synfuel development at the level required to protect our national interest are well taken. In fact, it was the view of most members of the Banking Committee when the bill was being marked up that the issue of funding levels could best be resolved on the floor. Thus, the committee agreed to use the figure adopted by the House for the purpose of reporting the bill.

It should also be noted that the Banking Committee reported this bill at the beginning of September, at a time when there were many uncertainties surrounding the question of how much revenue would be available for development of synthetic fuels.

At this point, however, it is clear that a substantial increase in the amount authorized in the bill is imperative. Most cost estimates for plants of the size authorized in the bill cluster near the \$1 billion mark. If 12 such plants, the maximum permitted by the bill, were constructed

\$12 billion would be needed. I am confident that this figure not only can be adjusted but will be adjusted so as to insure that there will be sufficient funds to undertake a meaningful and aggressive synthetic fuels development program. I hope that my colleagues who are still weighing the merits of each side of this issue will not look upon the funding level at a substantive difference of intent between the Banking and Energy versions.

Second, I believe that careful consideration of the reasons that a commercial synthetic fuels industry has not yet emerged in the United States will reveal that it would be unwise at this time to commit the country to a massive \$88 billion development program. While technology exists today to convert coal from solid form to a more versatile gas or liquid form, no such commercial facility has been built in the United States primarily because of the uncertainty surrounding the cost of producing a product that would compete with domestic or imported petroleum products.

Several companies, with the assistance of the Department of Energy, have undertaken the construction of small-scale plants which are testing second generation technologies developed in this country.

However, the uncertainty as to whether or not these plants can be operated a commercial scale is great enough to prevent the firms participating in the projects from making a commitment to their own technologies. Certainly, the business and technical judgment of these companies, exceeds that of the Federal Government. I am reluctant to authorize the construction of plants based on these technologies at this time when their sponsors are uncertain of the advisability of short circuiting the traditional development process.

The Banking Committee recognizes the need to proceed with an aggressive development program and has provided the authority to meet this need. However, it does not prejudice the experience that will be gained from this additional testing at smaller scale facilities. Based on this information, a decision will be made by the private sector and the Federal Government as to what the obstacles are to the establishment of a domestic synfuels industry and what part the Federal Government should play in encouraging the development of a commercial industry.

In addition to the uncertainty surrounding the cost of producing synfuels, there is great uncertainty concerning the environmental impacts of a commercial synfuels industry. Currently, the largest operating coal conversion facility consumes 6,000 tons of coal per day. A commercial scale plant would convert 5,000 tons of coal per day. Dealing with this amount of material alone presents problems which are yet to be resolved. In addition, questions have been raised and not sufficiently answered concerning possible toxic byproducts of the process and the impact on the carbon dioxide levels in the atmosphere. Until these and possibly other questions can be more thoroughly addressed through a demonstration plant project, I believe it would be unwise to make a decision on production goals and commercialization strategies, as, in fact, the Energy Committee bill does.

So, Mr. President, I hope my colleagues will join in substituting the Banking Committee bill.

The PRESIDING OFFICER. The time of the Senators has expired.

Mr. JOHNSTON. Mr. President, I yield myself 1 minute to read one paragraph from a statement of the President of the United States made on Monday. He said as follows:

Without the Energy Security Corporation, it would be almost impossible to have synthetic fuels and other supplies developed on a competitive basis. We will have an almost complete domination of energy supply opportunities by just a few major oil companies. So the passage of the Energy Security Corporation this week by the Senate is crucial to provide competition, to let our Nation have adequate energy supplies, and also, of course, to implement a major additional conservation effort. All of these factors contribute to our Nation's security.

I urge my colleagues to keep the President's statement in mind as they vote.

Mr. President, how much time remains?

The PRESIDING OFFICER. The Senator has 9 minutes remaining.

Mr. JOHNSTON. I yield 4 minutes to the distinguished Senator from Washington.

Mr. JACKSON. Mr. President, we are right back to where we were in 1975 and 1976 when this body, after the cutoff of 1973-74, passed two very substantial bills dealing with synthetic fuels by overwhelming margins, only to be defeated in the House by the same coalition which is fighting this bill.

The facts are very clear. We are importing over 8 million barrels a day. The testimony we had at Energy Committee hearings this morning is that domestic production, no matter what incentives occur, will remain at about 10 million barrels so we will continue to have this deficit.

Mr. President, how can any Member of this body vote for this amendment and go back to his or her constituency and answer the question, "What have you done to bring about an increase in production of oil and petroleum products?"

The facts are, and they are not disputed even by the industry, that they are not going to increase the production of oil and gas in the United States.

Mr. President, half of the 18 million barrels of oil that we burn every day, is under boilers. There we have two alternatives: Nuclear or coal.

A lot of Members in this body are opposed to nuclear and when you say nuclear, they say "coal." When you say coal, then you have problems.

I just heard a comment here which was rather incredible, that the answer is that only 3 percent or 5 percent will be taken care of in synthetic fuels, and 20 percent by solar. I would like to see the candidate running next year get up and say, "The answer is solar," and the constituent says, "Well, how do you get it into your gasoline tank?"

I say once again, we are going back to the gas lines. We are going back to the gas lines. How can any Member of this body stand up and say, "I voted against the synthetic fuels program, that is true, because the alternative is solar."

We have solar in this bill. We are doing everything we can in solar. We have conservation in this bill, we have biomass in this bill. But for the next 20-odd years, we shall still have to burn gasoline and diesel oil for automotive purposes and for heating.

Mr. President, we have to face the cold, hard fact that we have an opportunity now either to vote for a puny bill—really a research and development bill or a significant bill. We have been researching it since 1916, Mr. President, and they say this is a large sum of money. Well, Mr. President, we have dawdled since 1975 and 1976; when we had a chance to act, and we could be well on the way to producing oil now, we have dawdled. We could have it moving. We could have the oil.

And what has happened to costs? We paid \$7 billion for imported oil in 1973. Now we are paying \$70 billion a year, Mr. President. And we are arguing over a downpayment of \$20 billion over the next 3 or 4 years to get a synthetic fuels program going.

Mr. President, I can only say that we are in a critical situation in Iran. As of yesterday, there was a cutoff of oil deliveries. Today, it might be back on. Who knows about tomorrow? And what happens if Iran has its spillover effect on other countries?

I suggest we send a signal, a strong signal, not a muted or a confused signal, so the world will know that we are making a beginning, even if it is a small beginning. Surely, we do not want to make a puny beginning.

The VICE PRESIDENT. Who yields time?

Mr. JOHNSTON. Mr. President, I yield myself 1 minute.

Mr. President, the Chinese are, today, producing oil from shale. The Canadians are embarked upon a massive tar sands program involving an almost \$2 billion plant. The South Africans are in phase 2 of their SASOL plant, using the Fisher-Tropsch process, and will soon have all of their liquid fuels in that country produced from synthetic fuels.

The Brazilians, Mr. President, are into the gasohol field on a massive basis and will soon have all of their liquid fuels from gasohol produced from sugar.

In Europe, Mr. President, they are developing breeder reactors; they are going in a nuclear direction.

Mr. President, we have a chance today to make a choice at least to put this Nation in a partial direction toward energy self-sufficiency. If we do not do this today, if we do not opt for synthetic fuels, then we are either going to have to suffer the very serious consequences of lack of fuel or we are going to have to make another choice. That choice is, as my distinguished colleague from Washington said, nuclear power. I think many do not want to do that.

The VICE PRESIDENT. Who yields time?

Mr. JOHNSTON. Mr. President, how much time is left?

The VICE PRESIDENT. The Senator has 2½ minutes.

Mr. JOHNSTON. I yield 2½ minutes to the distinguished majority leader.

The VICE PRESIDENT. The Senator from West Virginia.

Mr. ROBERT C. BYRD. Mr. President, the American people are watching to see whether or not Congress is going to commit this country to a program that will lead us toward energy independence. For 40 consecutive months, this country has run a trade imbalance and in September, there was the highest trade imbalance of all, \$5.8 billion.

Mr. President, we are spending at the rate of \$70 billion a year for imported oil. Only so much can be done with respect to inflation because a major factor is the rising volume of oil imports and the rising costs of oil imports.

Mr. President, I offered an amendment to the Interior appropriations bill to add \$20 billion for the synfuels program. That money is in conference. This is the authorization that would provide for the appropriate expenditure of that money. I say, Mr. President, that today is the day of decision. Time is running out on beginning commercial production of synthetic fuels. We have talked about synthetic fuels for years. Now is the opportunity to put our money where our mouth is.

Mr. President, if the Senate adopts the amendment by Mr. Proxmire—and I say this with all due respect to my friend, and he knows I respect and love him—I can see the headlines: “Senate labors and brings forth a mouse.” A mouse, \$3 billion for research and development.

We have been talking about research and development for years.

Earlier this week I commended the distinguished chairman of the Senate Energy Committee (Mr. Jackson) for his leadership and hard work in developing a comprehensive energy production bill. I have stated my endorsement for this approach and I urge the Senate's support for title I as reported by the Energy Committee. There will be few more important votes which can be cast to insure this Nation's strategic and economic security. This is a matter of the greatest urgency and importance, with our Nation's future in the balance.

We cannot continue our dangerous dependence on foreign oil. Circumstances such as we are now witnessing in Iran underscore the immediate need to develop our own energy resources. We must mount a major national program to create a synthetic fuels industry in order to bring on line our enormous resources of coal and oil shale.

A fragmented program, rather than a definitive, long-range Federal commitment to the development of synthetic fuels, would be a sign that we are unwilling to curb our foreign oil appetite and prepare for the future. The consequences of such inaction could be dire.

The Energy Committee bill represents a comprehensive initiative which reflects the consensus of numerous experts from the business, science, and financial communities. It establishes an independent agency to channel financial aid to private industry to encourage the commercial development of synthetic fuels.

A synthetic fuels production capacity of 1.5 million barrels per day will require a unique cooperation between Government and the private sector. The approval of the Synthetic Fuels Corporation will not create a vast new bureaucracy and it will not put the Government in the energy business. It will, however, provide the evidence of national commitment and the continuity of purpose to make the synthetic fuels program a reality. It will send a signal to the financial and business communities that the risks entailed in such an effort will be worth taking.

This legislation does not commit the Government to the open-ended expenditure of \$88 billion. Those who use that argument to oppose this bill ignore the fact that the funds authorized are to be used pri-

marily for price and loan guarantees. Successful commercial production of synthetic fuels from coal or oil shale, combined with a continued rise in world oil prices, will mean that the actual Government investment will be minimal.

However, this legislation defines the terms for large-scale commercial synthetic fuel production by the end of this century by creating the framework for future action. Investments of this dimension cannot be made piecemeal. This bill provides for continued commitment while allowing for congressional participation in the decision to proceed with the synfuels effort. This is the proper balance and in my opinion is one of the essential elements of a successful synthetic fuels program.

Last month, I authored the amendment to the Interior appropriations bill which provided for the appropriation of \$20 billion to a special Treasury account called the Energy Security Reserve. These funds were approved by an overwhelming vote of the Senate for the express purpose of alternate fuel production. This legislation authored by the Energy Committee is complementary to that appropriations measure. I believed then, as I do now, that the energy crisis demands a new congressional commitment to accelerate the production of synthetic fuels from our own domestic energy resources. Recent events have only proved the urgency with which we must act.

The American people are angered by inflation fueled by rising energy prices as the OPEC cartel hikes prices over and over again. Our national security is threatened although no foreign troops approach our borders. We must act prudently, but we must act in recognition of the extraordinary dangers in which the energy crises places us. This legislation is the appropriate response and demands our support.

Now, Mr. President, the time has come to make this commitment firm and to let the American people know that the Senate stands behind this commitment. Let us not march up the hill and down again.

The gaslines are going to be back. The Senator from Washington spoke about the gaslines. They will be back, and much too soon. And, Mr. President, when they are back, those who vote for a \$3 billion research and development program that will just go on, like Tennyson's book, forever, are going to be asked questions: How did you vote? How did you vote?

Mr. President, I urge the Senate to vote down this amendment, and I say this with love and affection for my colleague. The time has come for the Senate to stand up and be counted and let the American people and the world know that we are committed to a meaningful program that will lessen our dependence on fuel oil imports from abroad within the next few years. It will not be tomorrow or the next day, but we have to start at some point.

Mr. PROXMIRE. Mr. President, I appreciate the love and affection of the Senator from West Virginia, but I wish he had not made that speech.

I yield 2 minutes to the Senator from Montana.

Mr. BAUCUS. Mr. President, today as we consider the second part of this year's energy legislation, I believe it is important that we discuss some basic principles about energy.

All of us agree that we have a responsibility to make this country as energy independent as possible. The Arab embargo of 1973 should have taught us this lesson, but it did not. This past summer's gasoline and diesel shortages underline how important self-sufficiency is. Once again, though, it also points to our failure to reach that goal.

Equally important, our national energy policy must be sensible. It is tempting to rush headlong into the future, ignoring what common-sense tells us is the correct approach.

There is no doubt that unnecessary Government redtape and bureaucratic entanglements have tied up vital energy projects—often for years. These procedures must be streamlined.

There also is no doubt that Congress has simply been too timid to make the tough decisions necessary to create an effective national energy policy.

The year's energy agenda recognizes the inadequacy of our past efforts. It recognizes that we have the opportunity to chart a new course, that we can reduce our imports of oil, that we can provide the kind of incentives necessary to encourage Americans to conserve significant amounts of energy, that we can increase domestic oil and gas production and, that we can insure synthetic fuels are part of our national energy arsenal.

The legislation before us presents several basic issues. How we vote on these questions will determine the speed, scope, and cost of synthetic fuels development in the United States.

The bills before us represent two basic approaches to the development of a synthetic fuels industry. Both bills have strengths and weaknesses, but our choice is clear.

I urge the Senate to make its decision based in the two principles I spoke of just a few moments ago: Energy independence and a commonsense approach to energy development.

Mr. President, it is my view that when we analyze the legislation before us in the light of these principles only one conclusion emerges: Reject the creation of a Synthetic Fuels Corporation.

In my view the Energy Committee's proposal is just the wrong way to reach these goals. It would push us too fast down a road to synthetic fuels development—without any guarantees that our money would be well spent.

The Energy Committee's bill speaks loud and clear on this point. Its proposal authorizes \$20 billion for a phase I program and requires a full report to Congress on the results of that effort.

As I read the bill, however, that is where our role ends. It looks to me as if once that report is completed, moving on to phase II—and authorizing another \$68 billion—is very easy, and virtually impossible to prevent.

Throwing money at a problem is not always the way to find a solution. We ought to know by now that is a risky approach.

Industrialists, engineers, investment analysts, and others agree development of a synthetic fuels industry will take time. The pace of discovery should not carelessly be rushed. Perfecting the technology for these massive plants—each of which would be the largest commercial scale, industrial plants in the Nation—is a long, complex process where mistakes would be extremely costly.

Producing synfuels in the quantities envisioned in the President's July 15 speech and in the Energy Committee's bill will take years. Everyone agrees to that. Rushing that process will only result in costly mistakes, wasted Federal funds and could even harm irreparably the future of synthetic fuels.

The Energy Committee's bill is just too big in its scope. It not only costs too much, but its scale is too large.

The Energy Committee's plan refers to the importance of technical diversity and for competition among all applicants to both large and small processes.

But I do not believe that will be the result if its bill is enacted into law. In my view, its bill is going to result in the largest possible synthetic fuels plants—while overlooking equally viable and valuable small scale projects.

The technology is not proven, and we do not know how long it will take to get the bugs out. The Banking Committee's approach is the sensible one. Let us obligate a modest, reasonable amount of Federal funds and see if the technology is going to work. Let us take a close look at the report from phase I before we pour another \$68 billion on what could amount to nothing more than a shallow hole.

Let us determine how synthetic fuels plans will affect our environment.

It is easy to argue for this approach when you are from a "synfuel" State. Montana and a handful of others will feel the burden of synthetic fuels because our water—the lifeblood of our economy—would be threatened, our air potentially polluted, and our communities bursting into boom towns. But even if I were not from a synfuel State, I would make these arguments, because only unwise national policy produces such economics and environmental consequences.

The Department of Energy has admitted to me that they lack information about some "critical water impact areas." They do not know how development of commercial-size synthetic fuels plants would affect the rivers of Montana that now provide drinking water, water for agriculture, and water for States on downstream. I think we should know a lot more than that before we commit major sums of money?

Likewise, the effect of a synthetic fuels plant on our local communities would be profound. Where will the funds come from for the new schools, roads, hospitals, sewers, and other public facilities needed to serve the thousands of new residents?

How will massive strip mining affect the landscape of the West?

These are all questions that must be answered before rushing toward synthetic fuel development on the scale proposed by the Energy Committee. Analyzing the phase I results to determine the answers to these questions will require time—time the Energy Committee's bill does not give Congress.

Finally, I am concerned about the Energy Committee's vision of the role of the Federal Government in the development of synthetic fuels.

Creating an independent and relatively unaccountable Federal corporation for the sole purpose of promoting synfuels could actually hinder the development of synthetic fuels.

I have always understood the role of the Federal Government to be that of a wise shepherd, using public funds to do what private investors cannot risk to do, spurring development of promising technologies for the investment market.

But as I read the Energy Committee proposal the Synthetic Fuels Corporation would be a lot more than that.

If the synthetic fuels industry is to be a success—in terms of efficiency and in the marketplace—Government should play a minimal role. The Banking Committee bill envisions such a role, providing limited Federal financial assistance for a program to demonstrate syn-fuels technologies on a commercial basis.

The Synthetic Fuels Corporation would create a new Federal bureaucracy to do a job that would be done better in the private sector.

In my view, the Energy Committee's proposal proceeds too fast, is too expensive, is too much of a threat to our environment, and represents too much Government.

Synthetic fuels must be given a fair chance. They will play a role in our energy future. But in fashioning that role, I ask my colleagues not only to consider the importance of energy independence but also to adopt a commonsense approach to synfuel development. Such analysis leads me inexorably to support the Banking Committee proposal. I urge my colleagues to do likewise.

MR. PROXMIRE. I yield the remaining time to the Senator from New Hampshire.

THE VICE PRESIDENT. Forty-five seconds.

MR. HUMPHREY. Mr. President, before the advent of modern medicine in modern times, the practice in medicine was bleeding the patient. If the patient did not get well, he was bled some more.

That is what we will do to our economy today if we choose to bleed off \$88 billion from the private sector in the name of expediency, and everything else, and turn it over to the politicians and bureaucrats to dribble it away, as they always do.

I believe in the private enterprise system. Yes. Let us develop our resources by letting the private sector work and not bleed it more.

Have we not learned our lesson, for heaven's sake?

I support the Senator from Wisconsin's amendment. I hope my colleagues do.

Once again we have gathered to debate the establishment of another Federal entity designed to solve a problem created by big government. Despite our experiences, we continue to spew out legislation that adds layer upon layer to the stifling Federal bureaucracy.

But this time we have a choice; a choice between haste and prudence, a choice between substantial Federal interference and limited Government involvement, and a choice between \$3 and \$88 billion. The Senate Banking Committee's version of title I to S. 932 is clearly the responsible choice. By any standards \$3 billion is a very large amount of money. It seems a modest proposal only when compared to the dangerously gargantuan proportions of the Senate Energy Committee's plan.

Many of my distinguished colleagues have pointed out the serious flaws contained in the proposal put forth by the Senate Energy Committee. A crash effort of the size envisioned by the Energy Committee would strain the market for available materials, subject areas of the

West to explosive, unplanned population growth, strain the limits of water supply, and commit an unprecedented amount of money and Federal involvement to what should be a private sector market. Whether or not such a program is funded by the windfall profits tax, the American taxpayer will foot the bill. The limited vision of this bill would lock us into a narrow band of the alternate energy spectrum. Also, were such an effort to fall short of its goal, public opinion could be soured for many years. Such a reaction would foreclose less hastily conceived plans to develop this technology.

Finally, the option the synthetic fuels corporation holds to establish joint ventures is an unwarranted step toward Federal assumption of risk and cost best left to private investment. The fact that the Government can absorb financially troubled projects discourages efficiency. Joint ventures remove the risk element and encourage premature technologies, transfer cost and risk to the taxpayer, and vitiate incentives for efficient operation.

The Senate Energy Committee has set a target of 1.5 million barrels of synthetic fuels production a day by 1995. Decontrol will result in an equivalent amount of extra production by 1985, 10 years earlier than the synfuels target date. There are more appropriate incentives to promote synfuels production than those contained in the Energy Committee's plan. We can free up public lands, provide tax credits, hasten decontrol, and change our punitive tax structure. The massive program planned by the Energy Committee is not what we need now. The Banking version is the reasonable choice.

THE VICE PRESIDENT. The question is on agreeing to the amendment of the Senator from Wisconsin.

MR. ROBERT C. BYRD. Mr. President, I ask unanimous consent there be 1 additional minute for Mr. Proxmire and 1 for Mr. Stevens.

THE VICE PRESIDENT. Without objection, it is so ordered.

MR. STEVENS. Mr. President, I merely want to say that I think the proposal before us that came from the Energy Committee is a credit to the work of the Senator from Louisiana (Mr. Johnston) and the Senator from New Mexico (Mr. Domenici).

This is a bill that I think has great promise for the country. Coming from a producing State, I still believe we must dedicate as much of our resources as possible to the synthetic fuels program.

I congratulate the two Senators for the hard work they have put into this bill. I, personally, hope the Proxmire amendment is defeated.

MR. PERCY. Mr. President, that I am not completely satisfied by the Banking Committee's version of S. 932. In particular, I am concerned that, in providing \$3 billion in assistance to help develop synthetic fuel processes, we may be aiding the creation of one more lucrative energy industry in which the small businessman or the independent oil producer plays no part. We have a new chance with synfuels—just like we do with solar energy and conservation—to create a broad base of activity, insure competition and unimpeded entry into the marketplace.

I would like to address a question about my concerns to the chairman of the Banking Committee (Mr. Proxmire).

It has been said that the Banking Committee's bill will be anticompetitive—more so than the Energy Committee's version—because it restricts available incentives to purchase the price guarantees, and to

loan guarantees of up to \$500 million. Congress would have to approve loan guarantees above this amount.

Supporters of the Energy Committee bill argue that regulated utilities and small companies are going to need bigger loans and loan guarantees than your bill allows if they are going to play any role at all in synthetic fuel development. Purchase and price guarantees do them little good.

How do you respond to these charges? Are we, in essence, guaranteeing a big business synfuels monopoly?

Mr. PROXMIER. I thank the Senator from Illinois for his most thoughtful question. With him, I agree that we should promote competition and participation by smaller firms to the maximum extent practicable.

I would point out that the Banking Committee substitute does provide for loan guarantees, which are generally needed by smaller firms. Congressional approval is not required for guarantees larger than \$500 million. Rather, such guarantees can be reviewed by the Congress, and disapproved if both Houses reject it. This is not a one-House veto, but a two-House veto.

I am committed to a program which would maximize participation by smaller firms.

REDUCING OUR DEPENDENCE ON OPEC

Mr. BIDEN. Mr. President, I rise in opposition to the Banking Committee substitute synthetic fuels title to the omnibus energy bill before this body today, S. 932.

I oppose the Banking Committee substitute not because this synthetic fuels provision is without substantial merit. In fact, I believe title I of the Banking Committee bill is superior to title I of the Energy Committee bill we are debating. However, I believe both of these titles merit substantial modification. These modifications with respect to the funding levels authorized for synfuel development, and the structures we create for effecting that development, are contained in the substitute amendment I am pleased to cosponsor with my distinguished colleagues, Mr. Hart of Colorado and Mr. Tsongas of Massachusetts. I hope that regardless of the outcome of the vote on the Banking Committee title I substitute, that his body would act favorably on the Hart-Tsongas-Biden amendment.

Mr. President, synthetic fuels development must play an important role in reducing our dependence of foreign sources of crude oil. We simply cannot tolerate continued growing vulnerability to the volatility of developments in the Middle East and throughout the OPEC cartel. Synfuels, however, will only play a "part" in reducing that dependence. For the foreseeable future aggressive commitment to energy conservation will play a much more important role. We also must fundamentally redirect our energy goals to the development of renewable sources of energy—the cleanest and most abundant forms of energy supply available to us.

Only these energy sources will once and for all offer us energy independence—independence not only from foreign governments, but also from anticompetitive behavior on the part of the energy industry. In many respects, therefore, titles II, III, and IV of S. 932 are more

significant than the synfuel provisions of title I. These other titles of S. 932 encourage accelerated development of renewable energy sources, and more aggressive commitment to a national policy of energy conservation.

Mr. President, the Banking Committee title I synfuels provision we are voting on now simply does not authorize sufficient appropriations for a vigorous, but judicious synfuel development program. The Energy Committee title, however, prematurely locks us into a massive commitment to synfuels. Nothing could be worse for this country, Mr. President, than for the United States to commit itself to full throttle synfuel development, and to find that such development poses unacceptably high environmental, technical, financial, or other consequences. We would then, by braking such a technology, demonstrate more vulnerability to the foreign oil cartel than is even now apparent. We simply should not today set in motion an unprecedented commitment of Federal dollars, \$88 billion, with all the uncertainties entailed in synthetic fuel development.

We must, Mr. President, devote sufficient capital to give this technology a good boost. That is what the amendment I am cosponsoring with Senators Hart and Tsongas provides for. We must not strait-jacket ourselves into major Federal commitments which initial investments may demonstrate are unwise. That is what the Tsongas/Hart/Biden title I substitute guards against.

Mr. President, we must get moving and wean ourselves off of foreign sources of energy. The synfuels incentives we enact here today will help us do that. But they will only play a part in lessening that dependence. Our commitment to a national policy of energy conservation must be no less aggressive, as should our commitment to expeditiously developing renewable sources of energy. We must do this while we maximize domestic production of oil and gas—and increase our utilization of this country's natural endowment of plentiful coal reserves. To do less would be to adopt policies we will live to regret.

Mr. LEVIN. Mr. President, I intend to vote for the synthetic fuel title proposed by the Energy and Natural Resources Committee, and against the Banking Committee substitute. While I believe that both approaches represent responsible attempts to provide Federal financial support for a fledgling synthetic fuels industry, I think that the Energy Committee's version, as the committee has indicated they will be willing to amend it, represents a more forthright and well-reasoned commitment to the production of synfuels, and for that reason I intend to support it.

I believe that the energy program we adopt in this bill must be a balanced one, and must do everything possible to reduce our reliance upon imported oil. In order to reduce imports, we must cut down the margin between what we produce within our own country, and what we consume. We cannot afford to neglect either side of the equation.

Later in the consideration of this bill we will focus on measures for reducing consumption through conservation and increasing our reliance on alternative forms of energy. Synthetic fuels offer one of the potentially most promising means of increasing domestic supply, because it would allow us to make use of our abundant domestic supplies of coal, oil shale, tar sands, and biomass to produce or displace a commodity which is not so abundant: oil. Although a great deal remains

to be learned about synfuels, with respect to their technological and economic viability and the environmental problems that may be associated with them, they represent too important a potential source of a type of energy we need; namely, transportable liquid fuel, to weaken their development potential.

The Energy Committee has crafted a sensible two-stage approach to synfuel production. In the first stage, the Corporation would be charged with the responsibility of demonstrating a diversity of synfuels technologies, and only after those had been adequately tested would we proceed to full-scale development of an industry capable of producing 1.5 million barrels per day. Moreover, the committee has indicated its willingness to accept certain modification to the program which remove some of the more problematic features.

First, the floor manager, the distinguished Senator from Louisiana, has indicated that he will clarify that the \$88 billion referred to in the bill is a goal for expenditure in the problem, not an authorization. I believe that it would be premature for the Congress at this stage to authorize that enormous amount, without having the specifics of the program before it for consideration.

Also, the Senator has indicated that he will postpone the deadline for submission of the second-stage plan by the Corporation, and allow for some flexibility if the Corporation feels it needs more time to develop information on which to base its program. This also will make for a more careful and deliberate approach to the development of the program. These modifications would, in my view, strengthen the committee's amendment, and with these understandings I am pleased to support it.

Mr. HUDDLESTON. Mr. President, I rise in strong support of the synthetic fuels provisions reported by the Senate Energy Committee.

The threat to this Nation of our dependence on foreign oil cannot be overstated. This dependence cannot continue if we are to survive as a free and prosperous Nation.

Already we have suffered embargoes and production cutbacks for which we were ill prepared, and the events in Iran are a brutal reminder of our vulnerability.

Already we are feeling the painful economic consequences of sending \$70 billion overseas each year for oil payments, and with oil prices nearing \$50 per barrel on the spot market, that will only get worse.

As the Energy Committee pointed out in their report, "even should all national energy conservation proposals be successful and conventional energy supplies be forthcoming, in 1990 the United States still would have to import approximately 6.5 to 7.5 million barrels of oil per day."

Can there be any question that we have to have an aggressive synthetic fuels program?

The Energy Committee has given us the blueprint for a massive national program to commercialize the production of synthetic fuels from our Nation's enormous resources. It is an investment in the future of this Nation—a very modest investment, I believe, when you consider what is at stake. Certainly we can accept no less.

Substitutes will be offered to weaken the Energy Committee's proposal; we will be cautioned to slow down, to lower our sights, to skimp on our investment.

We simply cannot afford to let that happen. I strongly urge that weakening substitutes be rejected, and that we proceed as quickly as possible to the establishment of an Energy Security Corporation with enough financing and flexibility at its disposal to make a major contribution to our energy self-sufficiency.

The VICE PRESIDENT. Who yields time?

Mr. PROXMIRE. I yield back my time.

The VICE PRESIDENT. All time has been yielded back. The question recurs—

Mr. PROXMIRE. Mr. President, I ask for the yeas and nays.

The VICE PRESIDENT. Is there a sufficient second?

The yeas and nays were ordered.

Mr. ROBERT C. BYRD. Mr. President, I ask unanimous consent that the clerk repeat the name of the Senator and the vote after each vote is cast.

The VICE PRESIDENT. Without objection, it is so ordered.

Mr. RANDOLPH. Mr. President, I suggest that on this vote we do not permit ourselves to gather in the well of the Chamber.

The VICE PRESIDENT. The question is on agreeing to the amendment of the Senator from Wisconsin. The yeas and nays have been ordered and the clerk will call the roll.

The assistant legislative clerk called the roll.

Mr. WILLIAMS (when his name was called). On this vote I have a pair with the Senator from New Hampshire (Mr. Durkin). If he were present and voting, he would vote "nay." If I were at liberty to vote, I would vote "yea." I therefore withhold my vote.

Mr. STEVENS (after having voted in the negative). On this vote I have a pair with the Senator from Alaska (Mr. Gravel). If he were present and voting, he would vote "yea." If I were at liberty to vote, I would vote "nay." I therefore withdraw my vote.

Mr. CRANSTON. I announce that the Senator from New Hampshire (Mr. Durkin), the Senator from Alaska (Mr. Gravel), and the Senator from Massachusetts (Mr. Kennedy) are necessarily absent.

Mr. STEVENS. I announce that the Senator from Tennessee (Mr. Baker) is necessarily absent.

The PRESIDING OFFICER. Are there any other Senators in the Chamber who wish to vote?

The result was announced—yeas 37, nays, 57, as follows:

[Rollcall Vote No. 390 Leg.]

YEAS—37

Armstrong	Hart	Pressler
Baucus	Hatch	Proxmire
Boschwitz	Heinz	Pryor
Byrd,	Helms	Ribicoff
Harry F., Jr.	Humphrey	Sarbanes
Chafee	Kassebaum	Schmitt
Cochran	Laxalt	Simpson
Cohen	Leahy	Stafford
Cranston	Lugar	Tower
Culver	McGovern	Tsongas
Dole	Muskie	Wallop
Garn	Packwood	Welcker
Goldwater	Percy	

NAYS—57

	Glenn	Morgan
a	Hatfield	Moynihan
1	Hayakawa	Nelson
	Heflin	Nunn
	Hollings	Pell
7	Huddleston	Randolph
rs	Inouye	Riegle
5	Jackson	Roche
Robert C.	Javits	Sasser
	Jepsen	Schweiker
	Johnston	Stennis
	Levin	Stevenson
th	Long	Stewart
ini	Magnuson	Stone
ci	Mathias	Talmadge
erger	Matsunaga	Thurmond
n	McClure	Warner
	Melcher	Young
	Metzenbaum	Zorinsky

NT AND GIVING A LIVE PAIR, AS PREVIOUSLY RECORDED—2

, against.
is, for

NOT VOTING—4

Gravel

Kennedy

re amendment (No. 570) was rejected.

ROBERT C. BYRD. Mr. President, I move to reconsider the vote which the amendment was rejected.

JOHNSTON. I move to lay that motion on the table.
motion to lay on the table was agreed to.

UP AMENDMENT NO. 733

JOHNSTON. Mr. President, I have an amendment which I send to the clerk and ask for its immediate consideration.

PRESIDING OFFICER (Mr. Stewart). The amendment will be

read by the assistant legislative clerk read as follows:

Senator from Louisiana (Mr. Johnston), for himself and Mr. Domenici, submitted an unprinted amendment numbered 733.

JOHNSTON. Mr. President, I ask unanimous consent that the reading of the amendment be dispensed with.

PRESIDING OFFICER. Without objection, it is so ordered.
The amendment is as follows:

On page 81, line 12, strike "unless disapproved" and insert "when approved".
On page 81, strike subsection (c) (1) and insert in lieu thereof the following:
1) Not later than five years after the effective date of this title, the Commission shall submit its proposed comprehensive strategy to the Congress. The strategy shall be deemed approved if both Houses of Congress have adopted, within sixty calendar days of continuous session of Congress, a concurrent resolution approving such proposed strategy. In the event that a plan is not approved within 60 day period, the Board of Directors shall modify the strategy and submit the modified strategy to the Congress within ninety calendar days for its approval as provided by section.

"(2) Upon introduction, the resolution shall be referred immediately to the Committee on Energy and Natural Resources of the Senate and the appropriate committee of the House of Representatives.

"(3) (A) If the committee to which a resolution of approval has been referred has not reported it at the end of 30 calendar days after its introduction, it is in order to move either to discharge the committee from further consideration of the resolution or to discharge the committee from further consideration of any other resolution relevant to this matter which has been referred to the committee.

"(B) A motion to discharge may be made only by an individual favoring the resolution, is highly privileged (except that it may not be made after the committee has reported a resolution of disapproval), and debate thereon shall be limited to not more than one hour, to be divided equally between those favoring and those opposing the resolution. An amendment to the motion is not in order, and it is not in order to move to reconsider the vote by which the motion is agreed to or disagreed to.

"(C) If the motion to discharge is agreed to or disagreed to, the motion may not be renewed, nor may another motion to discharge the committee be made with respect to any other resolution of approval.

"(4) (A) When the committee has reported, or has been discharged from further consideration of, a resolution of approval, it is at any time thereafter in order (even though a previous motion to the same effect has been disagreed to) to move to proceed to the consideration of the resolution. The motion is highly privileged and is not debatable. An amendment to the motion is not in order, and it is not in order to move to reconsider the vote by which the motion is agreed to or disagreed to.

"(B) Debate on the resolution of approval shall be limited to not more than ten hours, which shall be divided equally between those favoring and those opposing the resolution. A motion further to limit debate is not debatable. An amendment to, or motion to recommit, the resolution is not in order, and it is not in order to move to reconsider the vote by which the resolution is agreed to or disagreed to.

"(5) (A) Motions to postpone, made with respect to the discharge from committee or the consideration of a resolution of approval, and motions to proceed to the consideration of other businesses, shall be decided without debate.

"(B) Appeals from the decisions of the Chair relating to the application of the rules of the House of Representatives or the Senate, as the case may be, to the procedure relating to any resolution of approval shall be decided without debate."

Renumber the succeeding paragraphs accordingly.

On page 112, strike line 2 and insert in lieu thereof the following: "in the aggregate principal amount of \$20,000,000,000, plus such sums as are authorized in the resolution referred to in section 122 (the total of which shall not exceed \$88,000,000,000)".

On page 112, strike lines 6 through 8 and insert in lieu thereof the following: "enactment of this Title. Such sums as are authorized, not to exceed \$68,000,000,000, shall become available upon approval of the comprehensive strategy pursuant to section 122".

On page 112, strike line 18 and insert in lieu thereof the following: "of the aggregated principal amount of \$20,000,000,000, plus such sums as are authorized in the resolution referred to in section 122 (the total of which shall not exceed \$88,000,000,000) : *Provided, how-*".

On page 146, strike line 5 and insert in lieu thereof the following: "Secretary of the Treasury \$20,000,000,000 plus such sums as are authorized in the resolution referred to in section 122 (the total of which shall not exceed \$88,000,000,000) to pur-".

On page 892, after line 13, insert the following subsection:

"(c) (1) The resolution approving the proposed comprehensive strategy under this Title shall read as follows after the resolving clause: 'That approves the comprehensive strategy transmitted to the Congress by the Corporation on and dollars are hereby authorized to be appropriated without fiscal year limitation to the Treasury to purchase and retain notes or other obligations of the Corporation.', the first blank space therein being filled with the name of the resolving House, the second blank space therein being filled with the day and year and the third blank space therein being filled with the appropriate dollar figure."

Mr. JOHNSTON. Mr. President, this is the amendment which we referred to in the Chamber submitted on behalf of the Senator from New Mexico (Mr. Domenici) and myself which limits phase 2. It expressly limits it without the affirmative action of the Senate.

I yield to the Senator from New Mexico to explain the amendment.

Mr. DOMENICI. Mr. President, this amendment will extend the period of time for the first phase from 3 years to 5, after which Congress will have an opportunity to say go or no go or partially go or partially no go on the second phase development.

The second thing it will do is it will set the $1\frac{1}{2}$ million barrels a day equivalence as a target. The $1\frac{1}{2}$ million barrels of oil a day equivalence and \$88 billion are goals and targets for the total program.

The third thing that it will do is it authorizes the board of directors to present a comprehensive strategy for Congress' approval and I stress that "for Congress' approval" and simultaneously therewith will recommend appropriate funding levels for phase 2, which both Houses of Congress will have an opportunity to approve or disapprove under expedited legislation the process heretofore adopted by the Senate in EPCA.

None of the additional \$68 billion may be obligated until thus authorized and appropriated as provided for in the bill.

I believe that a number of Senators understood we would do this, and it more clearly, in my opinion, conforms with the intent of a majority of the Energy Committee when we adopted this two-phased measure.

Mr. PROXMIRE. Mr. President, will the Senator from New Mexico yield?

Mr. DOMENICI. I am pleased to yield.

Mr. PROXMIRE. Does this amendment provide the amount of the so-called second phase funds available? The \$20 billion is left in the bill, as I understand it. Is that right? Twenty billion is authorized.

Mr. DOMENICI. Authorized; that is correct.

Mr. PROXMIRE. But before any additional funds beyond that \$20 billion would be authorized it would be necessary for both the House of Representatives and the Senate to act. Expedited procedures mean that the legislation would have to come out of the committee within what, 10 days?

Mr. DOMENICI. It would have to be on the floor within 60 days.

Mr. PROXMIRE. Within 60 days on the floor.

Mr. DOMENICI. Thirty days' discharge in answer to the Senator's question.

Mr. PROXMIRE. Thirty days' discharge, and then we mandate a vote within 10 days.

Mr. DOMENICI. We mandate a vote in both Houses within 30 thereafter. So the total is 60.

Mr. PROXMIRE. I see. All right. But the amount would not necessarily be \$68 billion or \$10 billion or \$20 billion. It would be whatever is recommended in the committee's recommendation and Congress finally approved; is that correct? The \$68 billion would just be the ultimate goal.

Mr. DOMENICI. That is exactly right. That is the maximum. That is the ceiling.

Mr. PROXMIRE. It is a ceiling.

Mr. DOMENICI. That is the ceiling.

Mr. PROXMIRE. I see. All right. I thank the Senator.

I congratulate the distinguished Senators for doing an effective job on this. We thought the vote was going to be close. We could not have been more wrong. We were rolled over. The Senators did a great job. But I do think that if nothing else the debate on this bill did establish something that we dearly wanted, and that was to eliminate the commitment which we thought was automatic as originally written into the Energy Committee bill for \$88 billion. What this does is to provide initial funding of \$20 billion and then more after the first phase and after Congress has an opportunity to determine what we discovered on the basis of the \$20 billion that has been spent for commercialization; is that correct?

Mr. JOHNSTON. The Senator is correct, and I am delighted that the distinguished Senator from Wisconsin is reassured by this amendment, and I hope and trust he will join with us now in the bill since we have taken care of his concern.

Mr. PROXMIRE. May I say I would be happy to, but there are a couple other things.

For instance, I am very much opposed to the Government-owned, contractor-operated plants. And there are two or three other items I think we can clean up in the bill. I think it is greatly improved, and I congratulate the Senator.

Several Senators addressed the Chair.

Mr. JOHNSTON. Mr. President, I move the adoption of the amendment.

Mr. TSONGAS. Mr. President, a parliamentary inquiry.

The PRESIDING OFFICER (Mr. Pryor). The Senator will state it.

Mr. TSONGAS. Senator Hart and I have a substitute compromise between the Energy Committee version and the Banking Committee version which includes very much what the Senator from Louisiana and the Senator from New Mexico are offering at this point.

Would a substitute after this is voted upon be in order, or would it be in order to now move the substitute which would include this language? I do not want to get foreclosed in a parliamentary sense before I can offer my amendment.

The PRESIDING OFFICER. While this amendment is pending, a substitute for title I will not be in order. But after the amendment is disposed of the substitute amendment to title I would be at that time in order.

Mr. TSONGAS. If that substitute amendment incorporates much of what is in this amendment that would not be precluded?

The PRESIDING OFFICER. Will the Senator restate the inquiry?

Mr. TSONGAS. The substitute that we have to title I incorporates much if not all of the amendment that is now before us. I inquire whether there would be a point of order sustained against the substitute based on the fact that the substitute includes language that has already been passed upon should this be voted upon now.

The PRESIDING OFFICER. The amendment can include language as long as it is substantially different from title I, as amended.

Mr. HART. Mr. President, a parliamentary inquiry.

The PRESIDING OFFICER. The Senator will state it.

Mr. HART. Would it be in order——

The **PRESIDING OFFICER.** Will the Senator suspend? The Senate will be in order. The Senator may proceed.

Mr. HART. Would it be in order for the Senator from Massachusetts to call up our amendment as a perfecting amendment to the pending amendment of the Senator from Louisiana?

The **PRESIDING OFFICER.** If it is indeed a perfecting amendment, it would then be in order.

Mr. TSONGAS. Will the Chair advise us as to whether the substitute would be a perfecting amendment?

The **PRESIDING OFFICER.** The substitute amendment is not a perfecting amendment.

Mr. HART. Mr. President, I suggest the absence of a quorum.

The **PRESIDING OFFICER.** The clerk will call the roll.

The second assistant legislative clerk proceeded to call the roll.

Mr. RIBICOFF. Mr. President, I ask unanimous consent that the order for the quorum call be rescinded.

The **PRESIDING OFFICER.** Without objection, it is so ordered.

UP AMENDMENT NO. 734

(Purpose: To provide for studies relating to carbon dioxide atmospheric accumulation)

Mr. RIBICOFF. Mr. President, I ask unanimous consent that the amendment in the nature of a substitute of the Senator from Louisiana be temporarily laid aside so that I can call up an amendment.

The **PRESIDING OFFICER.** Is there objection to the setting aside of the pending amendment? The Chair hears none, and it is so ordered. The clerk will report the amendment.

The legislative clerk read as follows:

The Senator from Connecticut (Mr. Ribicoff), for himself and others, proposes an unprinted amendment numbered 734.

Mr. RIBICOFF. Mr. President, I ask unanimous consent that further reading of the amendment be dispensed with.

The **PRESIDING OFFICER.** Without objection, it is so ordered.

The amendment is as follows:

At the appropriate place insert the following:

"Sec. . (a) The President shall undertake to enter into appropriate arrangements with the National Academy of Sciences to conduct a comprehensive assessment and investigation of the impact of projected levels of fossil fuel combustion on the accumulation of carbon dioxide in the atmosphere as a basis for a specific assessment of such impact by the projects and technologies which are proposed in this Act. The study shall also assess the effects of various possible levels of atmospheric carbon dioxide accumulation on climate and the economic, physical, and social impacts of such climate changes. In conducting this study, the Academy is encouraged to work with other nongovernmental and intergovernmental bodies so as to develop an interim worldwide assessment of this problem, and to arrange for original research on any aspect of the problem as the Academy deems necessary.

"(b) The study shall also recommend—

"(1) how a long-term program of domestic and international research, monitoring, modeling, and assessment of the causes and effects of atmospheric carbon dioxide accumulation should be structured;

"(2) how the United States can best play a role in the development of such a long-term international program;

"(3) what domestic resources would be made available to the study of such accumulation;

"(4) how the ongoing United States Government carbon dioxide assessment program should be restructured and strengthened so as to provide information and recommendations of the highest possible value to governmental policymakers; and

"(5) how often reports should be made to the Congress, in conjunction with any long-term assessment program that the Academy may recommend.

"(c) A report and recommendations with regard to the study required under this section shall be submitted to the Congress not later than two years after the date on which an agreement is reached by the President with the Academy. The President shall report to the Congress within six months after the date of enactment of this Act regarding the status of the negotiations to implement the study required under this section. The report shall not be subject to any prior clearance or review, nor shall any such prior clearance or conditions be imposed on the Academy as part of the arrangements made by the President with the Academy under this section.

"(d) The Secretary of Energy, the Secretary of Commerce, the Administrator of the Environmental Protection Agency, and the Director of the National Science Foundation shall furnish to the Academy at its request any information which the Academy determines necessary for the purpose of conducting the study authorized by paragraph (1) of this subsection.

"(e) Of the funds authorized to be appropriated under this Act, such amounts as are required shall be available to carry out the study authorized by paragraph (1) of this subsection. The determination as to the expenses which will be required to conduct this study shall be made by the National Academy of Sciences, but shall not exceed \$2,000,000."

Mr. RIBICOFF. I want to take this opportunity to thank the distinguished Senators from Louisiana, New Mexico, Massachusetts, and Colorado for their consideration.

The amendment I propose is to provide for studies relating to carbon dioxide atmospheric accumulation. I am pleased to offer this amendment on behalf of myself, and Senators Muskie, Durenberger, Glenn, Hart, Javits, Moynihan, Tsongas, Levin, and Bradley.

Mr. President, last July the Committee on Governmental Affairs held a symposium to examine the effects of synthetic fuels production programs on the accumulation of carbon dioxide in the atmosphere, the so-called Greenhouse effect.

The problem posed by this accumulation, which is caused by man's increased combustion of fossil-based fuels, was drawn to my attention by a number of prominent scientists last summer, and by Chancellor Helmut Schmidt of West Germany. The Chancellor believes that it is a major threat to the future of mankind. The problem is being addressed on a limited basis within the United States Government by an interagency task force led by the Department of Energy. Groups within the National Academy of Sciences have also recently done some preliminary assessments.

The symposium of scientists and Senators which I convened last July in the Government Affairs Committee reached conclusions similar to those recently announced to the Academy's climate research board. The symposium found that—

The possible long-term impacts of CO₂ accumulation in the atmosphere are important enough to require continuous high-level attention of scientists and energy policy makers both in the United States and abroad. . . . Questions still exist on many aspects of the CO₂ problem. . . . While these uncertainties remain we cannot predict the precise consequences of uncontrolled fossil fuel use.

Specifically, the findings were that:

First. Increasing concentrations of CO₂ into the atmosphere have been at a rate faster than can be absorbed by the oceans and land biological systems.

Second. A doubling of the present atmospheric concentration would probably occur within 50 years and cause a major heating of the earth—averaging around 2 to 3 degrees Centigrade.

Third. This heating may well cause severe climate changes varying greatly from region to region and have severe impacts on some societies.

Fourth. There are still major uncertainties in the pace and impact of the warming, and how the effects will occur. We have not even begun to address the question of reducing the severity of some of the possible effects.

Fifth. Thus we need to deepen our understanding of this phenomenon as quickly as possible. We need to know more about the carbon cycle, future fossil fuel use and fossil-based synthetic fuel use, climate changes which are likely to occur at different CO₂ levels.

Sixth. The CO₂ problem is a global one which needs global solutions. There is some effort, but inadequate and uncoordinated to get at this problem in the international community. There is some work going on in the World Meteorological Organization, and some planning by the United Nations Environment program. There have also been some recent studies by the International Council of Scientific Unions. This Council has a subcommittee, the Scientific Committee on Problems of the Environment, or SCOPE, which consists of representatives from 33 nations. SCOPE has recently looked into various matters relating to the carbon cycle, and there is interest there in doing further work. Our National Academy is a member of SCOPE and it is my expectation that the Academy will, as a result of my amendment, take a leadership role in developing an international program which befits the magnitude of the problem we face.

It is important that we marshal the resources to focus on all aspects of this problem as soon as possible. If it becomes necessary to make decisions on our fuel mix in order to reduce the dangers that may arise from CO₂ concentrations. We will need 10 to 20 years to do it. Other nations will also need accurate information on the potential danger to shift their fuel mixes if necessary and to reduce whatever effects climate change may bring.

This amendment would authorize the National Academy of Sciences in conjunction with other nongovernmental bodies (like SCOPE) and intergovernmental bodies (such as the World Meteorological Organization) to develop a worldwide assessment of the impact of fossil fuel combustion, including a specific assessment of the impact of synthetic fuel programs on CO₂ accumulation. The Academy would report to the Congress on three things:

First, how a long-term program of domestic and international research, monitoring, modeling, and assessment of the causes and effects of atmospheric CO₂ accumulation should be structured.

Second, how the United States can best lead this effort.

Third, how the ongoing U.S. Government assessment program can be strengthened to provide information and recommendations of the highest possible value to policymakers.

I have consulted with the President of the Academy, Dr. Philip Handler on this proposal, and am pleased to report that the amendment would strengthen the Academy's ability to "provide independent and timely advice—to both the Congress and concerned Federal

agencies." It would also allow more basic research be done now—particularly in the form of climate modeling—than had been contemplated. Dr. Handler assured me that the Academy would promptly enlist the support of the appropriate international bodies in this effort.

Mr. President, I ask unanimous consent to insert an exchange of letters between myself and Dr. Handler, in which he expressed the Academy's great interest in this program, in the Record at this point.

There being no objection, the letters were ordered to be printed in the Record, as follows:

OCTOBER 30, 1979.

Dr. PHILIP HANDLER,
President, National Academy of Sciences, Constitution Avenue NW., Washington, D.C.

DEAR PHIL: Our discussions last July regarding the problem of Carbon Dioxide accumulation in the atmosphere were most helpful in arranging the Government Affairs Committee Symposium: "Carbon Dioxide Accumulations in the Atmosphere, Synthetic Fuels and Energy Policy." I proposed this symposium to take a closer look at the problems we discussed and to produce a report on the deliberation of the experts.

The recommendations of the experts outlined in the report stressed the need for continued monitoring and examination of the impacts of synthetic fuel production on Carbon Dioxide accumulation and climate. There was a consensus that the impact of Carbon Dioxide accumulation must be addressed on an international as well as national level.

As a result of these recommendations, I am proposing legislation which would authorize further study of the Carbon Dioxide problem associated with synthetic fuel production. It would be of great value if the National Academy of Sciences were to direct this effort.

The National Academy would be authorized to:

1. conduct a comprehensive assessment of the accumulation of Carbon Dioxide in the atmosphere by synthetic fuel projects.
2. assess the effects of Carbon Dioxide accumulation on climate.
3. work with other nongovernmental and intergovernmental bodies to develop a worldwide assessment of the problem, and
4. conclude within two years with a report and recommendations for a long-term program to the President, the Secretary and the Congress.

The specific details of the proposal are enclosed. I believe that the program to investigate this problem is an important complement to any national effort to produce synthetic fuels. I hope that the Academy will be able to participate.

I appreciate your past advice, and hope we can continue to work together on this important issue. I look forward to hearing from you on this proposal.

Sincerely,

ABE RIBICOFF.

NATIONAL ACADEMY OF SCIENCES,
November 1, 1979.

HON. ABRAHAM A. RIBICOFF,
*U.S. Senate,
Washington, D.C.*

DEAR SENATOR RIBICOFF: I was most pleased to have your letter of October 30 and to know that we in the Academy were of some assistance to your Committee in its deliberation in the problems associated with future accumulation of carbon dioxide in the atmosphere. Academy groups that have looked at this problem have emphasized the need for a continuous program of monitoring and examination of these accumulations and of the impact which future energy policies may have on such accumulation.

As you may be aware, a five-year plan for the study of climate has been mandated under the National Climate Act of 1978 which relates to the matter outlined in your proposed amendment. The language of your proposed amendment clearly indicates the importance given by the Congress to the need for addressing the problems associated with future accumulation of carbon dioxide and would strengthen the ability of the Academy to provide independent and timely advice

on these matters to both the Congress and concerned Federal agencies. It also would allow us to undertake certain study considerations that require more emphasis than is contemplated by the present national plan.

Upon enactment of such a legislative mandate, the Academy, of course, will be pleased to work with the government in assuring that such an assessment gets under way promptly and that necessary steps are taken to enlist appropriate international participation at both governmental and nongovernmental levels.

The proposed draft language accompanying your letter is consistent with the format used in other instances where the Congress wished to enlist the services of the National Academy of Sciences under the authorization of its initial Congressional Charter.

Please let me know if we can be of further assistance to you in this effort.

Sincerely yours,

PHILIP HANDLER,
President.

Mr. RIBICOFF. Mr. President, the Office of Science and Technology Policy in the White House recently asked the National Academy to do a preliminary synthesis on the state of scientific knowledge on various aspects of the carbon dioxide problem. This report, which is now done, confirms that the problem is a long-term one with serious—but still uncertain and controversial—ramifications. It is supportive of the kind of work that I propose be done in this amendment. I ask unanimous consent that the summary and conclusions of this report be printed in the Record.

There being no objection, the summary and conclusions were ordered to be printed in the Record, as follows:

SUMMARY AND CONCLUSIONS

We have examined the principal attempts to simulate the effects of increased atmospheric CO_2 on climate. In doing so, we have limited our considerations to the direct climatic effects of steadily rising atmospheric concentrations of CO_2 and have assumed a rate of CO_2 increase that would lead to a doubling of airborne concentrations by some time in the first half of the twenty-first century. As indicated in the first section of this report, such a rate is consistent with observations of CO_2 increases in the recent past and with projections of its future sources and sinks. However, we have not examined anew the many uncertainties in these projections, such as their implicit assumptions with regard to the workings of the world economy and the role of the biosphere in the carbon cycle. These impose an uncertainty beyond that arising from our necessarily imperfect knowledge of the manifold and complex climatic system of the earth.

When it is assumed that the CO_2 content of the atmosphere is doubled and statistical thermal equilibrium is achieved, the more realistic of the modeling efforts predict a global surface warming of between 2°C . and 3.5°C ., with greater increases at high latitudes. This range reflects both uncertainties in physical understanding and inaccuracies arising from the need to reduce the mathematical problem to one that can be handled by even the fastest available electronic computers. It is significant, however, that none of the model calculations predicts negligible warming.

The primary effect of an increase of CO_2 is to cause more absorption of thermal radiation from the earth's surface and thus to increase the air temperature in the troposphere. A strong positive feedback mechanism is the accompanying increase of moisture, which is an even more powerful absorber of terrestrial radiation. We have examined with care all known negative feedback mechanisms, such as increase in low or middle cloud amount, and have concluded that the oversimplifications and inaccuracies in the models are not likely to have vitiated the principal conclusion that there will be appreciable warming.

The known negative feedback mechanisms can reduce the warming, but they do not appear to be so strong as the positive moisture feedback. We estimate the most probable global warming for a doubling of CO_2 to be near 3°C . with a probable error of $\pm 1.5^\circ \text{C}$. Our estimate is based primarily on our review of a series of calculations with three-dimensional models of the global atmospheric

circulation which is summarized in Chapter 4. We have also reviewed simpler models which appear to contain the main physical factors. These give qualitatively similar results.

One of the major uncertainties has to do with the transfer of the increased heat into the oceans. It is well known that the oceans are a thermal regulator, warming the air in winter and cooling it in summer. The standard assumption has been that, while heat is transferred rapidly into a relatively thin, well-mixed surface layer of the ocean (averaging about 70 m in depth), the transfer into the deeper waters is so slow that the atmospheric temperature reaches effective equilibrium with the mixed layer in a decade or so.

It seems to us quite possible that the capacity of the deeper oceans to absorb heat has been seriously underestimated, especially that of the intermediate waters of the subtropical gyres lying below the mixed layer and above the main thermocline. If this is so, warming will proceed at a slower rate until these intermediate waters are brought to a temperature at which they can no longer absorb heat.

Our estimates of the rates of vertical exchange of mass between the mixed and intermediate layers and the volumes of water involved give a delay of the order of decades in the time at which thermal equilibrium will be reached. This delay implies that the actual warming at any given time will be appreciably less than that calculated on the assumption that thermal equilibrium is reached quickly. One consequence may be that perceptible temperature changes may not become apparent nearly so soon as has been anticipated. We may not be given a warning until the CO₂ loading is such that an appreciable climate change is inevitable. The equilibrium warming will eventually occur; it will merely have been postponed.

The warming will be accompanied by shifts in the geographical distributions of the various climatic elements such as temperature rainfall, evaporation, and soil moisture. The evidence is that the variations in these anomalies with latitude, longitude, and season will be at least as great as the globally averaged changes themselves, and it would be misleading to predict regional climatic changes on the basis of global or zonal averages alone.

Unfortunately, only gross globally and zonally averaged features of the present climate can now be reasonably well simulated. At present, we cannot simulate accurately the details of regional climate and thus cannot predict the locations and intensities of regional climate changes with confidence. This situation may be expected to improve gradually as greater scientific understanding is acquired and faster computers are built.

To summarize, we have tried but have been unable to find any overlooked or underestimated physical effects that could reduce the currently estimated global warmings due to a doubling of atmospheric CO₂ to negligible proportions or reverse them altogether. However, we believe it quite possible that the capacity of the intermediate waters of the oceans to absorb heat could delay the estimated warming by several decades. It appears that the warming will eventually occur, and the associated regional climatic changes so important to the assessment of socioeconomic consequences may well be significant, but unfortunately the latter cannot yet be adequately projected.

Mr. RUBINOFF. Mr. President, I urge the support of the Senate for this amendment and its adoption.

Mr. JOHNSTON. Mr. President, this is an excellent amendment. It sets aside \$2 million to study this difficult problem of pollution by coal. Coal, I think, is a major part, perhaps the preponderant part, of the answer to the energy crisis in this country. Nevertheless, coal, Mr. President, does involve environmental problems the scope and dimensions of which we do not know fully in this country yet. We do not know what the problems of all the pollutants from coal are.

This study, relatively modest in cost, will help us in that direction. We think it improves the bill and it is something we should be doing anyway, and we enthusiastically support the amendment.

Mr. DOMENICI. Mr. President, in behalf of the minority, we commend the Senator for offering this amendment. It improves the bill. It is obviously something we must do; we might as well authorize it

and provide for it right here in this authorization. We support the measure.

Mr. RIBICOFF. I thank the Senator.

Mr. TSONGAS. Mr. President, may I inquire of the Senator from Connecticut, does the amendment provide for the study of the carbon dioxide levels from not only coal and other fossil fuels, but synthetic fuels generally?

Mr. RIBICOFF. That is correct, all synthetic fuels to the extent that they produce carbon dioxide in the atmosphere.

Mr. TSONGAS. I would just say, Mr. President, this issue is not going to get a lot of attention here this afternoon, but it is going to become a major issue as time goes on.

Mr. JOHNSTON. Mr. President, who has the floor?

The PRESIDING OFFICER. The Senator from Massachusetts, I believe, at this time has the floor.

Mr. JOHNSTON. Mr. President, will the Senator yield for a unanimous-consent request?

Mr. TSONGAS. I yield.

Mr. JOHNSTON. I ask unanimous consent that the name of the Senator from Indiana (Mr. Bayh) be added as a cosponsor of the Domenici-Johnston amendment.

The PRESIDING OFFICER. Without objection, it is so ordered.

Mr. RIBICOFF. Mr. President, I move the adoption of the amendment.

The PRESIDING OFFICER. The question is on agreeing to the amendment offered by the Senator from Connecticut.

The amendment (UP No. 734) was agreed to.

Mr. RIBICOFF. I move to reconsider the vote by which the amendment was agreed to.

Mr. JOHNSTON. I move to lay that motion on the table.

The motion to lay on the table was agreed to.

Mr. TSONGAS. Mr. President, again I suggest the absence of a quorum.

The PRESIDING OFFICER. The clerk will call the roll.

The second assistant legislative clerk proceeded to call the roll.

Mr. JACKSON. Mr. President, I ask unanimous consent that the order for the quorum call be rescinded.

Mr. HART. Reserving the right to object, may I just inquire as to what the parliamentary situation is here?

The Senator from Washington knows that the Senator from Massachusetts intends to offer a substitute to the pending amendment and we are waiting for the managers.

The PRESIDING OFFICER. If the Senator will suspend, debate is not in order.

Mr. HART. I am asking a question so I can find out what the purpose of the request is.

Mr. JACKSON. Mr. President, a parliamentary inquiry.

The PRESIDING OFFICER. The Senator will state it.

Mr. JACKSON. Has the quorum been called off?

The PRESIDING OFFICER. No.

Mr. JACKSON. Mr. President, I ask unanimous consent that the order for the quorum call be rescinded.

Mr. HART. Reserving the right to object—

The PRESIDING OFFICER. The Senator may not reserve the right to object. He may only object, or not object.

Mr. JACKSON. I am doing this in cooperation with the Senator from Massachusetts.

Mr. HART. That is all I wanted to know.

The PRESIDING OFFICER. Is there objection?

Without objection, it is so ordered.

UP AMENDMENT NO. 735

(Purpose: To provide for a comprehensive national synthetic fuels program and for other purposes)

Mr. TSONGAS. Mr. President, I call up my perfecting amendment which is at the desk, and I ask unanimous consent that the names of Senator Biden and Senator Hart be added as cosponsors.

The PRESIDING OFFICER. Without objection, it is so ordered.

The amendment will be stated.

The legislative clerk read as follows:

The Senator from Massachusetts (Mr. Tsongas), for himself, Mr. Biden, and Mr. Hart, proposes an unprinted amendment numbered 735.

Mr. TSONGAS. Mr. President, I ask unanimous consent that reading of the amendment be dispensed with.

The PRESIDING OFFICER. Without objection, it is so ordered.

The amendment is as follows:

At the end of the amendment proposed by the Senator from Louisiana, UP 733, add the following:

Provision of this title:

SHORT TITLE

SECTION 1. This Act may be cited as the "Energy Security Acts".

TITLE I—SYNTHETIC FUELS

SHORT TITLE AND TABLE OF CONTENTS

SEC. 101. (a) This title may be cited as the "Synthetic Fuels Act of 1979".

(b) TABLE OF CONTENTS.—

TITLE I—SYNTHETIC FUELS

Sec. 101. Short Title; Table of Contents.

Subtitle A—Findings and Purposes

Sec. 102. Findings.

Sec. 103. Purposes.

Sec. 104. General Definitions.

Subtitle B—Establishment of the Office of Energy Security

Sec. 110. Establishment.

Sec. 111. Authority of the Director.

Sec. 112. Annual Report.

Sec. 113. Authorization of Administrative Expenses.

Subtitle C—Production Goals of the Office of Energy Security

Sec. 121. Overall Production Goals.

Sec. 122. Production Strategy.

Sec. 123. Solicitation of Proposals

Subtitle D—Financial Assistance

Sec. 131. Loan Guarantees Made by the Office of Energy Security.

Sec. 132. Price Guarantees Made by the Office.

Sec. 133. Purchase Guarantees Made by the Office.

Sec. 134. Limitations on Contracts.

Subtitle E—Water Rights

Sec. 141. Water Rights.

Subtitle F—Department of the Treasury

Sec. 151. Authorizations.

SUBTITLE A—FINDINGS AND PURPOSES

FINDINGS

SEC. 102. The Congress finds and declares that—

- (1) the achievement of energy security for the United States is essential to the health of the national economy, the well-being of our citizens, and the maintenance of national security;
- (2) dependence on foreign energy resources can be reduced significantly by the production of synthetic fuels from domestic resources; and
- (3) attainment of synthetic fuels production in the United States in a timely manner and in a manner consistent with the protection of the environment will require financial commitments beyond those expected to be forthcoming from nongovernmental capital sources and existing Government incentives.

PURPOSES

SEC. 103. The purposes of this title are—

- (1) to stimulate development of synthetic substitutes for crude oil and conventional natural gas while minimizing Government involvement;
- (2) to provide the information necessary to advance toward the goal of at least 1,500,000 barrels of oil per day of synthetic fuels in consideration of both the economics desirability and environmental acceptability of such action;
- (3) to provide financial assistance to encourage and assure the flow of capital funds to those sectors of the national economy which are important to the domestic production of synthetic fuels;
- (4) to encourage private capital investment and activities in the development of domestic sources of synthetic fuels and to foster competition in the development of the Nation's synthetic fuel resources;
- (5) to test synthetic fuels technologies to determine their potential role in meeting the Nation's energy needs in terms of—
 - (A) their commercial viability;
 - (B) their environmental impact, including, but not limited to, water consumption, water pollution, and air pollution;
 - (C) their health and safety aspects, including, but not limited to, any carcinogenic effect;
 - (D) their effect on regional and local agricultural production;
 - (E) their social and economic impacts;
 - (F) their thermodynamic balances; and
- (6) to foster greater energy security and reduce the Nation's economic vulnerability from disruptions in imported energy supplies.

GENERAL DEFINITIONS

SEC. 104. As used in the title the term—

- (1) "concern" means any—
 - (A) person, or
 - (B) State, or any political subdivision or governmental entity thereof, Indian tribe or tribal organization, or
 - (C) combination of the aforementioned, which is engaged, or proposes to engage, in a synthetic fuel project or projects pursuant to this title;
- (2) "financial assistance" means—
 - (A) guarantees of, or commitments to guarantee, indebtedness, including principal and interest (hereinafter referred to as "loan guarantees");
 - (B) contracts to purchase synthetic fuel, guarantees thereof, or commitments therefor (hereinafter referred to as "purchase agreements"); and
 - (C) guarantees of, or commitments to guarantee, the price received or to be received by a concern from the sale of synthetic fuel (hereinafter referred to as "price guarantees");

(3) "Indian tribe" means any Indian tribe, band, nation, or other organized group or community, including any Alaska Native village or regional or village corporation as defined in or established pursuant to the Alaska Native Claims Settlement Act which is recognized as eligible for the special programs and services provided by the United States to Indians because of their status as Indians;

(4) "person" means any individual, company, cooperative, partnership, corporation, association, consortium, unincorporated organization, trust estate, or any entity organized for a common business purpose;

(5) "State" means any of the fifty States, the District of Columbia, Puerto Rico, the Virgin Islands, Guam, American Samoa, and the Commonwealth of the Northern Mariana Islands;

(6) "synthetic fuel" means any liquid, gaseous or solid hydrocarbon (including mixtures of coal and petroleum) which can be used as a substitute for supplies of petroleum or natural gas (and for any derivatives thereof) derived from domestic sources of—

(A) coal, including lignite and peat;

(B) shale;

(C) tar sands, including those heavy oil resources which cannot technically or economically be produced using conventional or unconventional petroleum recovery techniques; and

(D) biomass, which shall include timber, animal and timber waste, municipal and industrial waste, sewage, sludge, oceanic and terrestrial plants, and other organic matter.

(7) "synthetic fuel project" means any facility located in the United States for the purpose of commercial production of synthetic fuel, including any necessarily related transportation or other facilities and including the equipment, plant, machinery, supplies, and other materials associated with the facility, including the land, mineral rights, services and working capital required directly for use in connection with the facilities for the production of synthetic fuels. In the case of a facility for the commercial production of synthetic fuel derived from biomass, such term shall include a facility for the production of alcohol or other synthetic fuels derived from timber, animal and timber waste, municipal and industrial waste, sewage, sludge, oceanic and terrestrial plants, and other organic matter; *Provided*, That such term shall include any facility located in the United States and used solely for the purpose of commercial production of mixtures of coal and petroleum for direct use as a fuel.

SUBTITLE B—ESTABLISHING OF THE OFFICE OF ENERGY SECURITY

ESTABLISHMENT

SEC. 110. (a) For the purpose of achieving the national goals described in section 121, the President shall establish the Office of Energy Security as an independent Office in the appropriate Federal Agency, to be headed by a Director.

(b) The Director shall be appointed by the President, by and with the advice and consent of the Senate and who shall serve at the pleasure of the President. The salaries of both the Director and the employees shall not be subject to civil service.

AUTHORITY OF THE DIRECTOR

SEC. 111. The Director shall be responsible for determining the terms and conditions of financial assistance agreements and the selections of recipients of financial assistance.

ANNUAL REPORT

SEC. 112. (a) (1) The Office shall submit to the Congress and the President an annual report containing—

(A) a general description of the Office operations during the year;

(B) a specific description of each project in which the Office is involved;

(C) a status report on each such project; and

(D) an evaluation of the contribution which the project has made and is expected to make in fulfilling the purposes of this title (including, where possible, a precise statement of the amount of domestic energy produced or to be produced thereby).

(2) The annual report shall contain financial statements prepared by the Office in accordance with generally accepted accounting principles consistently applied.

(b) The Director shall, not later than three years after the effective date of this title, submit a phase II plan to Congress or request for an extension. The phase II plan shall include an evaluation of phase I and a determination of whether further involvement is necessary to achieve the goals of this Act. Contingent upon the phase II report's own recommendation for further Federal involvement the plan should reassess the goals of this Act and should include a formulation of a strategy, considering all practicable means for the commercial production of synthetic fuels, that will achieve the newly stated goals with the minimum Federal involvement.

AUTHORIZATION OF ADMINISTRATION EXPENSES

SEC. 113. (a) The Office is authorized to make cash outlays not to exceed \$25,000,000 during the period ending September 30, 1980, for its reasonable and necessary administrative expenses. For purposes hereof, administrative expenses shall be that portion of the Administration's office account for general and administrative expenses which includes salaries of personnel and consultants, expenses for computer usage, for space needs of the Office and similar expenses.

(b) Funds authorized for administrative expenses shall not be available for the acquisition of real property or for expenses related to corporation construction projects pursuant to subtitle E.

(c) The Director may make expenditures without further appropriation for reasonable and necessary administrative expenses not to exceed the limit provided in subsection (a) in any fiscal year and then only in accordance with a detailed statement of such expenditures which has been transmitted to the Congress, the Senate Committee on Energy and Natural Resources and the appropriate committees of the House of Representatives along with the President's budget for such fiscal year except that such expenditures for fiscal year 1980 may be made without such prior statement. It is the intention of this section that the Director's expenditures for administrative expenses shall reflect due consideration for economy and to the extent practicable shall be consistent with standards applicable to Federal agencies generally.

SUBTITLE C—PRODUCTION GOALS OF THE OFFICE OF ENERGY SECURITY

OVERALL PRODUCTION GOALS

SEC. 121. There is hereby established a national goal of achieving by 1995 the synthetic fuels production capability of at least 1,500,000 barrels per day of crude oil equivalent from domestic energy resources.

PRODUCTION STRATEGY

SEC. 122. In order to assure achievement of the national goal set forth in section 121 and the purposes of this title, the Office shall—

(1) within six months of the date of enactment of this Act, invite submission of proposals from interested concerns (hereinafter referred to as "bidders"), requesting financial assistance in the form of purchase commitments, price guarantees or loan guarantees, or a combination of the two, for the design, construction, and operation of synthetic fuel projects (hereinafter referred to as "projects"). The Director shall require that each proposal contain such information as necessary for the purposes of preventing selection of more than one project involving the same technology and insuring selection of projects which best serve the purposes of this title;

(2) not later than eighteen months after the invitation for proposals, select on a competitive basis to the maximum extent practicable up to twelve proposals which are deemed most likely to contribute to the purposes of this title and which each employ a different processing technology except that not more than six such proposals shall employ the same generic feedstock; and

(3) subject to the provisions of this title, enter into contracts with bidders providing for commitments to either purchase synthetic fuels produced by the proposed projects, guarantee price for the produced synthetic fuel or with public or private financing institutions for guaranteeing loans for design, construction, and operation of the proposed projects.

SOLICITATION OF PROPOSALS

SEC. 123. (a) Preference for selection of projects under section 122 shall be given to—

(1) the proposal which represents the least Federal financial commitment and the lower unit production cost within a given technological process, taking into account the amount and value of the anticipated synthetic fuel products; and

(2) in determining relative Federal commitment in decreasing order of priority, preference shall be given to—

(A) price guarantees or purchase agreements; and

(B) loan guarantees.

(b) For the purposes of this section the term "qualified concern" means a concern which demonstrates to the satisfaction of the Office evidence of its capability to undertake and complete the design, construction, and operation of the proposed synthetic fuel project.

(c) Subject to the conditions of any contract for financial assistance, such contract shall be incontestable in the hands of the holder, except as to fraud, or material misrepresentation on the part of the holder.

(d) Any contract for financial assistance shall require the development of a plan, acceptable to the Office, for the monitoring of environmental and health related emissions from the construction and operation of the synthetic fuel project. Such plan shall be developed by the recipient of financial assistance after consultation with the Administrator of the Environmental Protection Agency and the Secretary of Energy. Any contract entered into by the Office for financial assistance must include consultation with appropriate State agencies in the formulation of the applicant plan acceptable to the Director of the Office of Energy Security.

(e) The Office may, in its sole discretion and upon request of the recipient of financial assistance, reimburse such recipient for any reasonable costs in connection with a synthetic fuel project if construction of such project cannot occur within five years of the award of such financial assistance due to any Government regulatory action, or lack of action which, in the judgment of the Office, could not have been reasonably foreseen by the recipient and such reimbursement is consistent with the purposes of this title.

(f) No financial assistance may be provided unless an application therefor has been submitted to the Office in such manner and containing such information as the Office may require.

(g) The Office in providing financial assistance shall give due consideration to maintaining competition.

(h) The Office shall give priority consideration to applications for financial assistance from those concerns proposing a synthetic fuel project in those States, which, in the judgment of the Office, indicate an intention to expedite all regulatory, licensing, and related government agency activities related to such project.

(i) Every applicant for financial assistance under this Act shall, as a condition precedent thereto, consent to such examinations and reports thereon as the Office or its designee may require for the purposes of this title. The Office shall require such reports and records as it deems necessary from any recipient of financial assistance in connection with activities carried out pursuant to this title. The Office is authorized to prescribe the manner of keeping records by any recipient of financial assistance and the Office or its designee shall have access to such records at all reasonable times for the purpose of insuring compliance with the terms and conditions upon which financial assistance was provided.

(j) Each price guarantee under section 132 or a purchase agreement under section 133 shall specify in dollars the maximum amount of the liability of the Office thereunder.

(k) With regard to synthetic fuel project proposed by concern whose rates are regulated, the Office is authorized to consider as a factor in any decision to award financial assistance whether the regulatory body, or bodies, are likely to issue a ratemaking decision which will protect the financial interests of the investors and the Office.

(l) Whenever the Office, by one or more actions, awards a combination of forms of financial assistance for a single synthetic fuel project, the Office shall insure that the recipient of such financial assistance shall bear a reasonable degree of risk in the construction and operation of such project.

SUBTITLE D—FINANCIAL ASSISTANCE

LOAN GUARANTEES MADE BY THE OFFICE OF ENERGY SECURITY

SEC. 131. (a) (1) The Office is authorized, on such terms and conditions as the Office may prescribe, commit to, or enter into loan guarantees against loss of principal and interest on bonds, notes, or other obligations (including refinancing thereof) issued solely to provide funds to any concern for a synthetic fuel project. Loan guarantees shall be awarded to persons participating in a project, rather than to a project itself. The Director shall provide a loan guarantee only upon a finding that such a guarantee is needed to ensure the participation of the person, in light of the financial strength and resources of that person in relation to the costs of that person's participation in the project. Loan guarantees shall be limited to 75 per centum of the amount that such person has at risk in the project. Amounts not included as at risk shall include mines not associated with the conversion process, and costs deducted due to investment tax credits.

(2) Any guarantee made by the Office under this section shall not be terminated, canceled, or otherwise revoked, except in accordance with the terms thereof, and shall be conclusive evidence that such guarantee complies fully with the provisions of this title and of the approval and legality of the principal amount, interest rate, and all other terms of the securities, obligations, or loans and of the guarantee.

(b) If the Office determines that—

(1) the borrower is unable to meet payments and is not default it is in the public interest to permit the borrower to continue to pursue the purposes of such project; and the probable net benefit to the Office in paying the principal and interest due under a loan guarantee agreement will be greater than that which would result in the event of a default;

(2) the amount of any payment which the Office would be required to pay shall be no greater than the amount of principal and interest which the borrower is obligated to pay at that time; and

(3) the borrower agrees to reimburse the Office for such payment on terms and conditions, including interest, which are satisfactory to the Office.

then the Office is authorized to pay the lender under a loan guarantee agreement, an amount not greater than the principal and interest which the borrower is obligated to pay.

(c) The Office shall establish such terms and conditions for loan guarantees under this title as necessary to implement the purposes of this title and insure the prompt repayment of loans.

(d) The Office may not enter into any contract providing a Federal loan guarantee of an amount in excess of \$500,000,000 unless both Houses of Congress have been notified in writing of such proposed contract and thirty days of continuous session of Congress have expired following the date on which such notice was transmitted to the Congress and both Houses of Congress have not adopted, within such thirty-day period, resolutions disapproving such proposed contract.

(e) Guarantees may be made only to the extent appropriated funds are available. Appropriated funds shall remain available until termination of all guarantees.

(f) The terms and conditions of loan guarantees shall provide that, if the Office makes a payment of principal or interest upon the default by a borrower, the Office shall be subrogated to the rights of the recipient of such payment (and such subrogation shall be expressly set forth in the loan guarantee of related agreements).

PRICE GUARANTEES MADE BY THE OFFICE

SEC. 132. The Office is authorized on such terms and conditions as the Board of Directors may prescribe, commit to, or enter into price guarantees providing that the price that a concern will receive for all or part of the production from a synthetic fuel project shall not be less than a specified sales price determined as of the date of execution of the commitment or the price guarantee. No price guarantee shall be based upon a "cost plus" arrangement or variant thereof which guarantees a profit to the concern except that if the Office determines in its sole discretion that such project would not otherwise be satisfactorily completed or continued and that completion or continuation of such project would be necessary to achieve the purposes of this title, the sales price set forth in the price guarantee may be renegotiated.

PURCHASE GUARANTEES MADE BY THE OFFICE

Sec. 133. (a) The Office is authorized, on such terms and conditions as the Office may prescribe, commit to, or enter into or commit to enter into purchase agreements for all or part of the production from a synthetic fuel project. The sales price specified in a purchase agreement shall not exceed the estimated prevailing market price as of the date of delivery, as determined by the Office, unless the Office determines that such sales price must exceed such estimated prevailing market price in order to insure the production of synthetic fuel to achieve the purposes of this title.

(b) The Office in entering into, or committing to enter into a purchase agreement shall require—

(1) assurance that the quality of the synthetic fuels purchased meets standards for the use for which such fuels are purchased;

(2) assurances that the ordered quantities of such fuels are delivered on a timely basis; and

(3) such other assurances as may reasonably be required.

(c) The Office is authorized to take delivery of synthetic fuels pursuant to a purchase agreement and to sell such synthetic fuels to a person. In any case in which the Office accepts delivery of and does not sell such synthetic fuels to a person, such synthetic fuels shall be purchased by the Federal Government for use by an appropriate Federal agency. Such Federal agency shall pay the prevailing market price, as determined by the Secretary of Energy, for such synthetic fuels from sums appropriated to such Federal agency for the purchase of fuels.

(d) The Office is authorized to transport and store and have processed and refined any synthetic fuels obtained pursuant to a purchase agreement under this section.

LIMITATIONS ON CONTRACTS

Sec. 134. Contracts entered into under section 122 shall be subject to the following conditions:

(1) no contract shall require or permit advance payments;

(2) loan guarantees may be employed only if the Director determines that the purposes set forth in section 103 could not be achieved through purchase commitment contracts alone;

(3) all contracts must be entered into before October 1, 1983;

(4) no contract may commit the Federal Government to purchases beyond the seventh year of synthetic fuels production from a project, unless both Houses of Congress have been notified in writing of such proposed contract and thirty days of continuous session of Congress have expired following the date on which such notice was transmitted to the Congress and neither House of Congress has adopted, within such thirty-day period, a resolution disapproving such proposed contract;

(5) any purchase commitment contract shall provide that the Office retains the right to refuse delivery of the synthetic fuels involved and to pay the concern involved an amount equal to the amount by which the price of such synthetic fuels as specified in the contract involved exceeds the market price, as determined by the Secretary of Energy, for such synthetic fuels on the delivery date specified in such contract;

(6) with respect to any concern, including any other person who is substantially controlled by such concern (as determined by the Secretary of Energy), the Director may not award contracts for commitment to purchase more than fifty thousand barrels per day equivalent of synthetic fuels, or make loan guarantees for design, construction, and operation of a plant designed to produce over fifty thousand barrels per day equivalent of synthetic fuels; and

(7) any purchase commitment contract shall commit the Government to purchase fixed amounts of fuels at fixed prices adjusted by a formula that may take into account inflation, world oil prices or such other prices as the Director deems relevant, except that project costs may not be considered as a factor.

SUBTITLE E—WATER RIGHTS

WATER RIGHTS

Sec. 141. (a) Nothing in this title shall (1) affect the existing jurisdiction or authority of the States and the United States over waters of any stream or over

and water resources, including the authority to determine or allocate the use of waters of any stream or any ground water resource, (2) amend, repeal, interpret, modify, or be in conflict with any interstate compact by any States; or (3) confer upon any non-Federal entity the ability to exercise any Federal right to the waters of any stream or to any ground water resource.

No project constructed pursuant to the authorities of this title shall be deemed to be a Federal project for purposes of the application for or assignment of water rights.

SUBTITLE F—DEPARTMENT OF THE TREASURY

AUTHORIZATIONS

51. (a) There is authorized to be appropriated for purposes of this Act \$100,000 without fiscal year limitation to be allocated as follows: \$4,000,000 in 1980, \$4,000,000,000 in 1981, and \$6,000,000,000 in 1982 as well as \$100 for annual administrative cost. Such moneys shall be deposited within the Treasury in a separate account which shall be available to the Director for use of carrying out the purposes of this title.

On the basis of notification to the Secretary of the Treasury of financial needs by the Office, the Secretary of the Treasury shall reserve within the fuel account an amount equal to the known and estimated liabilities of the Office. As amounts become available for this purpose, the Director shall deposit in the general fund of the Treasury an amount equal to all lending which is extended to the Office.

TSONGAS. Mr. President, Congress is about to pass the first truly comprehensive energy bill. It has all the elements. It has a major program to stimulate conservation, solar energy, alcohol fuels, geothermal, wind and synthetic fuels from oil shale and coal. It has initiatives that pay off soon, and initiatives that pay off later.

Both bills have unprecedented programs for synthetic fuels development. Both committees have worked hard to craft a bill that would attempt to accelerate the pace of synthetic fuels development. They have staged programs with the first stage focused on a limited number of one-of-a-kind plants.

There are significant differences in the mechanisms chosen to carry out this approach. Energy has a corporation; Banking does not. Energy authorizes price and purchase agreements, with loan guarantees. Energy also includes direct loans, joint ventures, and GOCO's. Energy authorizes \$68 billion for phase II unless vetoed by one House; Banking does not. Banking authorizes \$3 billion. Energy has \$20

Mr. President, it was my fate to serve on both committees. Having gone through the deliberations of both committees, I think there is a common ground, and I believe Senator Hart does as well. There is a compromise that takes advantage of the best part of both bills. The common ground, I think, would be attractive to many people on its merits; and we believe it is possible—as we did 3 weeks ago—to sit down and look at the objectives to be achieved by both the Banking Committee and the Energy Committee and to craft those objectives into a compromise.

This substitute is not a rejection of the Banking Committee or the Energy Committee bill. It is a rejection of the administration's proposal. It represents a consensus of thinking after careful consideration of both bills. The elements of the compromise, in essence, take what we

feel are the best provisions of both bills and hope to achieve a consensus. Let me go into the difference.

The corporate issue:

The Energy Committee established a Corporation because it wants to assure that the Federal negotiator of synfuels assistance has the will and the financial capability to consummate the agreements. They also want the program to be immune to changes of policy in the executive branch and annual congressional budget competition. We concur in that concern.

The Banking Committee, on the other hand, does not establish a corporation, because it believes that it is unnecessary and would lead to overinvolvement by the Federal Government.

The problem with the success of either version is that it does not incorporate the advantages of the other argument. Our compromise represents a middle ground. It calls for the establishment of an independent synfuels office that would derive its funds as needed from the synthetic fuels account in the Treasury Department. It would thus have the budgetary independence that the Corporation enjoys. Because it is an independent office responsible to the President, it could enjoy simplified regulatory procedures, reduced political infighting, and less redtape than if it were just another program in DOE. But it also will help to coordinate the synfuels program with energy policy and will not create a vehicle that would lead to an unwarranted Federal role. A Corporation is unnecessary, but synfuels legislation should include language to assure a smooth working program.

Mr. President, I point out that in the parliamentary procedure we have before us, this Corporation is just an example of the fact that in the headlong clash between two committees, we end up in a situation in which the rationale and wisdom of one committee either will succeed or be rejected. We do not feel that that makes sense, either from the jurisdictional point of view or as to method, in order to get the best possible legislation.

The second issue is financial assistance:

The Energy Committee includes the power to establish three GOCO's. The Banking Committee has no provisions for GOCO's. While GOCO's are necessary at the advanced R. & D. stage it is desirable to have the private sector conduct the commercial scale demonstrations. This was pointed out at length in the Banking Committee hearings.

At the commercial stage, GOCO's are inefficient mechanisms for promoting a new industry: they are insulated from market signals, they have less incentive for efficiency, they provide little information about the commercial viability of the technology, and do not spur private sector investment. That is not to say that in particular circumstances GOCO's are appropriate if there are no private companies, but there is significant commercial promise despite the absence of private proposals. That window of circumstance, I believe, is something we have to deal with, and we do so.

The important question is whether we wish to define these criteria in the bill or make a case by case determination as we do for other major Government expenditures of \$3 billion, such as nuclear carriers. Some argue that if a GOCO requires a new authorization, it will not be

built. This would remove the GOCO threat that the Synfuel Office could use in negotiating with industry. The Energy Committee feels that the threat would not be credible if a new authorization were needed. Given the gas lines that we are going to see every year now and given the severe vulnerability we have to foreign cutoffs, it is unlikely that the pressure will be off. Request for authorization will not be impossible to get where the Office shows that industry is not interested but the technology looks good. It would not require new funding, just authority to construct. We think that is credible enough and it is not necessary to give GOCO authority.

Phase II:

Again, we find ourselves in a situation in which there are competing arguments on both sides. What we have done in the compromise on phase II is not unlike what the Johnston-Domenici amendment addresses itself to.

The Energy Committee requires in 3 years that a phase II plan is submitted. Unless there is a one-house veto within 60 days, \$68 billion is automatically authorized. The banking version has no phase II. The compromise sets up a framework for phase II but does not prejudice on authorization. Three years from enactment, the Director of the Synfuels Office shall submit a phase II plan to Congress or request an extension.

The phase II plan would include an evaluation of phase I, a determination of whether further involvement is necessary, a list of what types of incentives should be included, an estimate of when they should become available, a revision of the production goals, and a request for authorization. This approach assures that the synfuels programs momentum is not lost. It will cause a reasoned, comprehensive review of the production phase of this initiative. It does not prejudice it, does not lock it in concrete. The requirement for a new authorization will not slow things down because it needs a new appropriation.

I think that argument is obvious on its face, and I suspect that is the reason why the other amendment has been offered. I hope that will not cause any controversy.

Funding level for phase I:

Mr. President, I was present when both committees arrived at their figures. The Energy Committee has \$20 billion, and the Banking Committee has \$3 billion. We feel that \$3 billion is too low and that \$20 billion is too high.

But neither figure, in our opinion, has any solid technological basis to justify it.

The \$14 billion program that we have introduced hopefully is based on not a round figure but on technology.

The \$14 billion of purchase agreements/price guarantees and loan guarantees provided for in this bill in concert with the tax credits being made available through Finance Committee action insure that all the synthetic fuels participants reasonably close to initiating commercial ventures will receive the incentives they need to initiate action. We expect that this combination of incentives will motivate commercial oil shale investments from Union Oil Co., TOSCO and Arco, Occidental and Rio Blanco. Furthermore, we believe that sufficient funds are present both for investments in low, medium, and high Btu coal gasification

plants and a coal liquefaction plant as well as for a number of biomass plants.

The funding is authorized up front and placed in a synthetic fuels account in Treasury. Appropriations necessary to make these funds available are limited to \$4 billion in fiscal year 1980, \$4 billion in fiscal year 1981, and \$6 billion in fiscal year 1982.

The funding level is realistic. We feel it can accommodate a rational synfuels program and leave room from a balanced program in conservation and renewable resources.

Both bills want the same results. Both take different tacks. The Banking Committee is much more cautious; the Energy Committee is much more aggressive.

The Energy Committee tries to get in motion a major program that is harder to slow down than to maintain. It tries to keep the decision-making power in the administration to avoid future congressional delays. The Banking Committee takes a single step forward. The compromise which established a 1995 goal and provides for a phase II program is an amalgam of these objectives. It seeks more program continuity than Banking but also more flexibility and review than the Energy Committee version.

Given our precarious energy situation, our Nation will never again forget the urgency of finding solutions. I am not worried that if we give Congress an opportunity to review GOCO's or phase II or give the President the opportunity to integrate the program in the executive branch that the program will collapse or be delayed. I think it will insure that the program is on target, learns from the information it generates, and has the proper private-public sector balance. It provides the flexibility to increase the public sector role if that is warranted.

The compromise is middle ground. Neither the Banking nor the Energy Committees should see approval of this substitute as a defeat. It represents a rational combination of both bills and a political accommodation of diverse interests.

Mr. President, let me make one final point.

I am glad to see that neither committee argues for a crash program as the House has passed. We cannot legislate away scale up risks, design changes, cost overruns. We cannot merely wish our Nation to have the capacity to provide the labor, construction capacity, transportation capacity, and raw materials for \$88 billion worth of synfuels plants and still do other things and not create massive capacity shortages and hyperinflation. It would divert resources from more effective energy investments. Some say that we need a massive synfuels program to show the world we are serious about cutting imports, to build our own self-confidence. We think we have done this. But such an approach will never meet our expectations the way it is written in the Energy Committee version and will be sure to fail. No one will be fooled, especially our constituents. We have to have a program that tracks the learning curve that is directed at long term synthetic fuel viability and not immediate, wasteful activity.

Mr. President, a lot of time has gone into this compromise, and I wish to acknowledge the efforts of the Energy Committee and the Banking Committee because indeed it was their activity and deliberations which gave us the factual data for this compromise version.

JOHNSTON. Mr. President, I have a question here for the distinguished Senator from Massachusetts. On page 9 of his bill, subsection 1, it provides as follows:

... authorized for administrative expenses shall not be available for the acquisition of real property or for expenses related to corporation construction pursuant to subtitle E.

problem is I do not find a subtitle E nor do I find corporation construction projects. I wonder if the Senator could explain what that is?

TSONGAS. I say to the Senator that the original intent was to go with the substitute. That substitute had that section stricken and it is not in concert and had we not had this parliamentary maneuver we faced an hour ago that would have been deleted and the result is quite correct.

JOHNSTON. Mr. President, I have very high regard for the distinguished Senator from Massachusetts, for his real concern about the energy crisis, and for his hard work in the area. I wish I had as high regard for his amendment.

His amendment takes the worst features of the Banking Committee bill and brings them forward into a sort of a hodgepodge bill that is pasted from various bills and under the title of a compromise they have simply brought forward, as I say, the worst features of the Banking bill.

Let me explain what the really heart of this Tsongas amendment is. In the first of all, they provide for an independent office, but they do not require that independent office would go. But they say that the office that would run synthetic fuels would be in an appropriate Federal agency. We do not know what that appropriate Federal agency is. It could be the Department of Energy, of course. It could be the Environmental Protection Agency, and I am sure that some would like to think it could be any agency that the President chose.

The fact of the matter is even if it were put in the Department of Energy it will carry forward the very essence of what we have been trying to get away from by the energy bill, and that is in the energy bill we want to have an independent office, staffed by a board that is independent of the political whims and changes of mood of both Congress and the changes in the administration.

The reason for that is two. First, a historic reason, because Congress has been on again, off again. They have passed legislation in 1944 and that was later canceled. The President has undertaken programs going as far back as 1916 and then canceled it in 1936, and then canceled the program in the midfifties.

The House of Representatives killed the Senate bill that we passed for synthetic fuels in 1975. In order for industry to make the kinds of investments which they need to make, \$2 billion to \$3 billion, it is being led by Cameron Engineering for a synthetic fuels plant in the neighborhood of 50,000 barrels a day, in order to make those kinds of investments they need to be able to rely on the consistency, upon the stability of the Government group with which they deal.

That is the essence of the Energy Committee bill to create a group that will have some continuity and will be able to make a contract on which the private sector may rely.

Second, the Tsongas bill provides for \$14 billion; whereas, the Energy Committee bill provides for \$20 billion. Of course, on the Energy Committee bill \$1 billion of the \$20 billion is provided for biomass. The other \$19 billion is provided for synthetic fuels other than biomass and other than gasohol, gasohol being provided for in a separate title.

Almost every estimate that we have had indicates the cost of a 50,000-barrel-a-day facility at somewhere between \$2 and \$3 billion.

The Tsongas amendment, as did the Banking Committee bill, refers to 12 plants, not more than 12 plants, I believe, is the phrase, not more than 6 coal and 6 shale oil.

Mr. President, you simply cannot build the plants for the \$14 billion authorization. The \$19 billion figure used in the Senate Energy Committee bill was a figure based upon what we need to do to demonstrate the commercial viability of the principal technologies in synthetic fuels. Less money than that, Mr. President, will not demonstrate these figures. It may be a compromise arrived at by taking the difference between the Energy Committee bill and the Banking bill, but it is not a compromise that makes any sense. We either ought to take the route of the Banking Committee bill, which is a dabble of money, \$3 billion for R. & D., in effect, or go to the Senate Energy Committee bill which is a sufficient sum to do the job, to demonstrate in phase one the commercial viability of one-of-a-kind synthetic fuel plants.

That is the purpose, Mr. President, and I urge the Senate to keep in mind the purpose of what we are trying to accomplish in this legislation rather than think in terms of compromise between this personality or that personality or trying to reach a middle ground between two arithmetic figures. That is not what we should be doing. We should be attempting to address and we should be addressing that need to demonstrate these technologies.

Mr. President, I also point out that the Secretary of Energy has written, under date today, strongly opposing the Tsongas amendment. Just to read the first paragraph of his letter, he says as follows:

It is our understanding that Senators Tsongas and Hart intend to propose an amendment in the nature of a substitute to Title I of S. 932, and I am writing to express the Administration's strong opposition to that amendment.

Mr. President, the Secretary of Energy goes on to point out that this amendment involves, as he says, "business as usual," in pointing out the basic difference between the approach of the Banking Committee incorporated in the Tsongas amendment and the approach of the Energy Committee.

I ask unanimous consent that this letter from the Secretary of Energy be printed in the Record.

There being no objection, the letter was ordered to be printed in the Record, as follows:

THE SECRETARY OF ENERGY,
Washington, D.C., November 7, 1979.

HON. ROBERT C. BYRD,
U.S. Senate,
Washington, D.C.

DEAR SENATOR BYRD: It is our understanding that Senators Tsongas and Hart intend to propose an amendment in the nature of a substitute to Title I of S. 932, and I am writing to express the Administration's strong opposition to that amendment.

While enlarging the financial commitment for synthetic fuels beyond the level proposed by the Banking Committee to \$14 billion, the Tsongas-Hart substitute would lodge management of the program in a new office in "an appropriate Federal agency" rather than in an independent corporation. In other respects, the substantive provisions of the proposed substitute are largely patterned on the Banking Committee's version of Title I of S. 932.

In the Administration's view, the Tsongas-Hart substitute suffers from three principal defects. First, while appealing to move towards the principal embraced by the Energy Committee that "business as usual" will not be adequate to produce the needed results, the substitute would prohibit the establishment of an independent, Congressionally-chartered corporation. For the reasons stated in my letter of November 5, we believe that an independent entity, freed from the bureaucratic limitations under which present agencies function, is critical to a successful synthetic fuels production program. The Energy Committee version of Title I of S. 932 reflects a careful balancing of the need for accountability with the need for flexibility and action, a balance nowhere suggested in the substitute.

Second, the Tsongas-Hart proposal, while appearing to increase significantly the funds available for synthetic fuels, still falls short of the \$20 billion that we think is essential for the first phase of a commercialization program. This funding level was approved in principle during recent Senate floor action on H.R. 4960, and I strongly urge that there be no retreat from this level of commitment.

Finally, the Tsongas-Hart substitute, in failing to provide authority for loans and in subjecting the loan guarantee authority for major projects to cumbersome Congressional review procedures, will severely limit the ability of the Nation to meet necessary production levels in a timely fashion. Moreover, these same deficiencies will make it difficult for smaller enterprises, which experience greater capital formation problems, from undertaking projects—thereby limiting potential competition in the synthetic fuels industry we are endeavoring to establish.

As underscored by events over this last week, we must take action to reverse the Nation's still growing dependence on imported oil. An ambitious but achievable program for synthetic fuels development is an essential part of our strategy for reaching energy security, and I strongly urge the Senate to sustain the Energy Committee's version of Title I of S. 932 against weakening amendments.

Sincerely,

C. W. DUNCAN, JR.

Mr. JOHNSTON. Finally, Mr. President, the Tsongas amendment does not provide for joint ventures and does not provide for loans.

We heard testimony that joint ventures for what we call particular modules; modules being a commercial demonstration on a limited scale, are a very important step, particularly with those technologies which are not ready at this point to go to the full-scale 50,000-barrel-a-day demonstration plants.

According to our testimony, Mr. President, joint ventures are very important for that modular kind of commercial demonstration. I do not know why that was omitted from their bill, Mr. President, but it certainly is an oversight. It is a badly needed mechanism.

He also eliminates loans from the kinds of financial assistance which this office would be able to give. Mr. President, loans, as well as loan guarantees, as well as price guarantees, as well as the other methods, may well be necessary in order to evoke the kind of response from the private sector we think is necessary.

Mr. President, in summary, the Tsongas-Hart amendment simply takes the basic theory of the Banking Committee bill, which is business as usual, and the same Federal bureaucracy, and promotes that forward in almost the same sense as they are doing it now. We think it involves too little, it involves no independent office as in the Energy Committee bill, and we think it is a very deficient approach to the problem of synfuels.

Mr. President, I want to give the proponents of this amendment plenty of time, and I do not want to cut them off, but I will say for

my colleagues that at some appropriate point this afternoon I will offer a motion to table, but I will not do so until the Senators have had additional time to develop their amendment.

Mr. Hart addressed the Chair.

The PRESIDING OFFICER (Mr. Pell). The Senator from Colorado.

Mr. HART. Mr. President, as a principal cosponsor of this measure, I want to restate the critical nature of what we are doing here today to the State of Colorado and to the Rocky Mountain West. I know that other parts of the country, Appalachia and coal-producing areas, will be affected by the policy established for synthetic fuels. But there is no part of the country that will feel the effect of this legislation more than my region and more than my State.

We are critically and vitally concerned about the actions to be taken by Congress and the administration in this area and, consequently, I have to register once again my strong and deep feelings about the actions proposed by the Energy Committee and the justification supporting an alternative which attempts to address the nature of those concerns.

Once again, Mr. President, it is not an issue of business as usual versus doing something. Everybody and everyone is for doing something. Everyone is for a synthetic fuels industry. The question is not whether, the question is how. The question is what kind of rights we are going to trample on in the process. The question is what kind of economic system we are going to have in this country, and the question finally is who is going to be responsible.

I do not believe that that if you are not for "business as usual", you need to be for an Energy Security Corporation.

The only difficulty with it is that the problem is created by the Constitution of the United States.

What the Energy Committee is trying to do is to try to get around the bureaucracy "problems" created by our constitutional system. The administration proposes, the Congress of the United States legislates and oversees and that is the system we have. I think we are threatening to sacrifice the very system of checks and balances which makes this country work, as well as a good chunk of the free enterprise capitalistic system that makes it work. That is what the issue is.

To say that people who do not agree with the administration are for business as usual I think is a very unfortunate position for the administration and, particularly, the Secretary of Energy to take. It is essentially a charge that if you do not want to do anything or care anything about the energy crisis, you will support some other measure and will not go along with the administration.

If you are really concerned, then the only alternative you have is to support this the Energy Committee bill. That is nonsense, and I think the Secretary of Energy and the proponents of the Energy Committee proposal understand it is nonsense; and to send a letter around saying "If you do not agree with us you are for business as usual, you do not care about the energy crisis," is just patent nonsense.

We had on the floor an appropriation measure, as I recall, a couple of weeks ago. The majority leader, the distinguished Senator from West Virginia, was taking the position that we had to pass the funding level of \$20 billion to keep our options open. That was the argument. It did not commit us to anything.

The Secretary of Energy says:

Second, the Tsongas-Hart proposal, while appearing to increase significantly the funds available for synthetic fuels, still falls short of the \$20 billion that we think is essential for the first phase of a commercialization program. This funding level was approved in principle during recent Senate floor action on H.R. 4960, and I strongly urge that there be no retreat from this level of commitment.

We did not make any level of commitment. The majority leader said we were keeping our options open. Talk about a classic example of the camel's nose in the tent. We are asked to approve something to keep our options open until we hear the Energy Committee's report. Then we are told that we have a level of commitment. Well, this administration and the Energy Committee cannot have it both ways. The Senate was offered that \$20 billion, and some of us voted against it because we saw the train coming down the track, and here it is, a level of commitment.

Mr. JOHNSTON. Mr. President, will the Senator yield at that point?

Mr. HART. Yes, I would love to hear what the response is.

Mr. JOHNSTON. I think it is a level of commitment. Commitment is not a word of precision or a word of art. It is something less than an appropriation of funds; that is clear. Because the \$20 billion which has now been approved in the conference committee—the rest of the bill has not been approved, but the \$20 billion has been approved—that cannot be spent until further action of Congress in appropriating the money. In other words, that \$20 billion was appropriated to a fund and that money made available to the fund, but it may not be withdrawn from the fund until further appropriation by Congress.

Now, is that a commitment? I think it is, in the sense that Congress has said we want \$20 billion for synfuels. It is something less than a commitment, in the sense that anyone can spend that money. There was certainly no razzle-dazzle—

Mr. HART. Mr. President, the Senator from Louisiana misses the fundamental point here. If you go back and read the Record when that proposal was before the Senate, the principal sponsors of that proposal sold it to the Senate and the American people on the grounds that it was no commitment, that it was keeping our options open, and those are the very words the majority leader of the Senate of the United States used. Nobody was committed to anything until the Energy Committee came up with this figure. It was to keep a kind of a general leeway that the Energy Committee was talking about in there. The Energy Committee could come up with anything up to that amount.

What I am arguing about is the Secretary of Energy now saying that we committed ourselves to something, when that was not the way it was sold to this body.

Mr. JOHNSTON. May I say to the Senator that if either the Energy Committee bill or the Tsongas-Hart amendment or any other amendment passes that is now pending, we will still not be committed, in the sense that it will take a further action of the Congress in appropriating money before anybody can spend that \$20 billion. There is a commitment, in my judgment, to the \$20 billion as a figure. Yes, I think there is.

Mr. HART. Well, I will just ask any American or Senator or reporter or anyone else to go back and read the Record, of the people who carried the administration's water on that. The Senate of the United States was definitely told that it was not any kind of commitment, we were not tying ourselves to anything, and now the principal administration spokesman is saying otherwise. It is a very, very serious problem, and I think it is a question of credibility, frankly, Mr. President.

We are told one thing on one day and suddenly, 2 or 3 weeks later, we are told just the opposite. I think it is a very serious problem, when we are trying to straighten out ourselves and the American people on where we ought to be headed. I could not object to it more. To use the argument that 2 or 3 weeks ago the majority of the Senate, some of whom made it very clear that they were not tying their hands to any figure, went ahead and approved a measure and now we are told that it is a commitment by the Senate to that figure, it is just not the case. That is not what the Senate was told. I think the Secretary of Energy is way off base when he sends a letter saying that.

I further object to the alternative argument that in supporting the Energy Committee legislation the Senate is for business as usual. As I have already said, I think that is nonsense and it is beneath the dignity of the administration to lay that one at the step of people who disagree with this approach and who are concerned about the effect of it. Arguments of this sort, I think, are not going to further the administration's position or give them very much credibility with the American people.

Back to the fundamental point, Mr. President, and that is who is going to be responsible? We have got two choices, it seems to me, on the question of synthetic fuel. We can go outside the normal governmental structure where the administration proposes specific measures, the appropriate committees of oversight of Congress look at those measures, approve them, authorize them, appropriate funds for them, and then oversee their operations or, we can step outside of that structure, create this autonomous Energy Security Corporation, which has minimal responsibility to, or for anyone, which steps outside of the normal authorization and appropriations procedure, give it a ton of taxpayers' dollars, and then tell it to go solve the problem. We may or may not feel responsible for what it does down the road.

Well, that may be wonderful for States that do not have to bear the burden, but the State of Colorado is going to have to bear the burden, and I want to play a role in that. I do not want to hand over my constitutional responsibilities as an officer under the Constitution—as a Member of the Senate—to any nonelected, autonomous body as to the future of what the State of Colorado is going to be. And that is what is at stake here, Mr. President, the future of the State of Colorado, if nowhere else.

I am being asked to vote to create somebody that is not responsible for its actions to Congress, and the future of my State rests on what that body is going to do—a bunch of, we are told, experts, nameless faces because we do not even know who they are going to be, except they are going to have a lot of experience in economics and banking and energy.

y may or may not have seen the western part of Colorado, and may or may not care what happens to it. And that is what I am ned about.

JOHNSTON. Mr. President, will the Senator yield?

HART. I yield.

JOHNSTON. Mr. President, the Senator has criticized the Energy ittee proposal because of the nameless, faceless people who have t been appointed. But can the Senator tell me, in his amend- which Federal agency would be used?

HART. The Senator from Colorado would much prefer that it be the Department of Energy, the Department this Congress l to run the energy programs of this country. I think it is really d that 2 or 3 years later, when the Senate of the United States, ergy Committee of the Senate of the United States admits that not even trust the Department we created to run this program. s effectively what we are saying, that we do not trust the De- ent of Energy. I think it is our job to make it work. If it is not ag, let us make it work or abolish it.

should not go outside the constitutional structure of Government e we do not trust or do not like the energy agency we created. We sponsible for that agency, and I say let us make it work. If we y synthetic fuels program, let us have the Department of Energy; my proposal DOE can hire new expert staff outside the civil e limits to run it. That is what I say. Everyone does not agree hat. A lot of people want to go back home and thrash the Depart- of Energy. Fine; there is plenty to thrash. We created it. We sponsible for it. We ought to make it work.

reason this amendment does not state that this office is going to he Department of Energy is because there are some people who to vote for this amendment that do not want to vote for an office E. And I think it is unfortunate.

GARN. Mr. President, will the Senator yield?

HART. I yield to the Senator from Utah.

GARN. I thank the Senator from Colorado for yielding. The or just made some points that I want to back up very strongly. ough this entire debate—and I might say I am disappointed that nking Committee version did not pass, not just because I am a er of the Banking Committee, but because I happened to be a or representing the State of Utah.

ention that in reference to what the Senator from Colorada has [t is amazing to me the debate that we have heard, and all these s, our colleagues from around the country and others who are pacted by this legislation at all. The major impact is going to be States. Ninety-five percent of all of the tar sands in the entire d States are in the State of Utah. Most of the oil shale overlaps olorado-Utah border, more of it in Colorado, but into eastern And here we, who have a responsibility to represent those States, ot been heard very much. We have all the experts from other who do not know very much about shale or tar sands or coal or ing else, who want to create this Energy Security Corporation us what to do.

So I share the resentment of the Senator from Colorado at having those concerns ignored. We do not need to create another body to administer this amount of money, to dictate technologies and sites and all of those kinds of things.

I support this amendment and I hope my colleagues will vote for it.

Mr. HART. Is the Senator from Utah as concerned as I am about the autonomous nature of the Energy Security Corporation in terms of responsibility to Congress for what it is doing, and the fact that it can undertake programs in our States and in our regions that can have serious effects on those States and yet do so outside the normal, congressional authorization and oversight process?

Mr. GARN. I am absolutely concerned about that. I do not think it should be the right of any Federal agency to come in and have the authority to run roughshod over State and local concerns. That may not happen, but at least this legislation allows the possibility of them doing that. And I am opposed to that.

Mr. HART. And the Senator would agree that the protection that we have is through that normal constitutional process. Congress has an obligation and responsibility to oversee what administrators of Federal programs are doing, so that we can follow what is up, not just on an annual basis, but any time we desire a hearing, we should be able to find out what is happening in a program, what environmental effects it is having, what social effects it is having in our States, what impact it is having on our economy, our transportation system, on the total fabric of that State and that region. Does the Senator agree with that?

Mr. GARN. I agree completely. The problem is magnified because in the West our States are largely federally owned, so the impact of Federal legislation has a great deal more to do with our total decision-making than it does in States which are mostly privately owned. It is even more important that we be heard, that our Governors, our legislators, our local county officials, county commissioners, and others have input into this decisionmaking process.

We happen to be fortunate to have a great deal of energy in our States. It is not that we are not willing to share that energy to help the national problem. We simply want it to be done properly so that we are not exploited, and so that our local concerns are considered.

Mr. HART. Would the Senator from Utah agree that part of the genius of the Founding Fathers was to establish one House of Congress that was not based on population but had equal representation in that body, so that no action would be taken by the Government of the country against any region without a vote equal to that from every other State in the Union? Is that not an important factor to consider?

Mr. GARN. It is absolutely important. As a matter of fact, during most of the history of this Senate, if both Senators from a State objected to a particular program, that senatorial courtesy was allowed because they did represent the entire State. That does not seem to make much difference any more. We see it happening all the time, that Senators representing a particular State or area are simply overlooked without a great deal of concern for the interests of their State.

Mr. HART. I thank the Senator from Utah for his comments.

The point that is trying to be made here is not the detailed niceties of one approach over another in terms of whether we ought to have

this type of incentive or that type of incentive, or some small detail of management or administration. The issue is as fundamental as the Constitution of the United States, and the issue is as fundamental as the future of the State of Colorado. That is what is going on here.

I think the Energy Committee has done absolutely a very good job in trying to solve a very difficult problem. I think they have worked hard. I think they are as concerned as any group of Senators, Members of Congress, or Americans about the problems this country faces. That is not the issue. Nobody is accusing the Energy Committee of bad faith or anything else.

The issue is, what effect is this measure going to have on my State and my region, and what am I going to be able to say about it?

Under the proposal put forward by the Energy Committee I am going to have very little, if anything, to say about it, once this train leaves the station. It concerns me. It concerns my State. And we have another way to do it which I think is just as supported by the facts as those presented by the Energy Committee.

Mr. President, the Senate has recently rejected a proposal by the Senate Banking Committee to substitute for the synthetic fuels title of the Energy Committee's proposal. Despite some limitations in the Banking Committee proposal, I strongly supported it. I now urge the support of my colleagues for a compromise proposal.

This compromise proposal would result in a synthetic fuels program that is roughly midway between the Energy Committee proposal, and the Banking Committee proposal. Differences between the Banking and the Energy Committee proposals, I believe, can best be highlighted by an analysis of four major issues. These four major issues are as follows:

First. What should be the administrative mechanism? Should there be an Energy Security Corporation, or something else?

Second. Should the Congress decide now to authorize a second phase for the synthetic fuels program to achieve particular production goals in the 1990's?

Third. What are the appropriate financial incentive mechanisms?

Fourth. What are the required funding levels for the program?

Before comparing the provisions of this compromise proposal to the Banking Committee or Energy Committee proposals, I would like to discuss provisions of this compromise as they pertain to these four major issues.

First, the compromise proposal contains an Office of Energy Security. Rather than create a large and completely autonomous Federal agency to administer the synthetic fuels program, this compromise would establish a much more modest Federal office to administer the program. The Director and staff of the Office of Energy Security would not be subject to civil service limitations, so that hiring could be done quickly. The best administrators in the country could be attracted. Under this compromise, the President could place the Office of Energy Security in the appropriate department within the administrative branch of Government. Authorizations and appropriations for this Office would be done through normal congressional procedures. It would not preclude, however, a large amount of initial funding for the Office of Energy Security so that firms signing con-

tracts for price guarantees would be assured that the Office could meet its obligations in the distant future.

Second, this compromise proposal retains the idea of a second phase synthetic fuels program. It retains the goal of 1.5 million barrels of oil equivalent to be produced in the mid-1990's. This proposal requires the Director of the Office of Energy Security to submit a plan to the Congress for a second phase. It is anticipated that this plan would be submitted within 3 years. However, the Director of the Office of Energy Security could request a delay in the submission of this plan if needed to obtain additional information on the economic and environmental aspects of the synthetic fuels processes.

In the second-phase proposal, which the Director would submit to Congress, there would be recommendations for any changes in the production goals for the 1990's, any changes in the types of financial incentive mechanisms offered, and a request for authorization. There would be no second-phase authorization in this legislation before you today. In other words, the anticipation of a second phase in this compromise is present, but the limits of the second phase, meaning the degree of Federal involvement, remain flexible for the next 5 years or so.

Third, financial mechanisms in this compromise are limited to price guarantees, purchase agreements, and loan guarantees. Price guarantees and purchase agreements are the same as in the Energy Committee and Banking proposals. Loan guarantees are limited in one new sense. In order to sign a contract for a loan guarantee, the Director of the Office of Energy Security must issue a finding that such a loan guarantee is necessary to insure the participation of the company in a particular project. The finding will include an analysis of the financial strength of that company in relation to the size of the share of that company in a project.

There would be no GOCO's, no direct loans, and no joint ventures in this compromise.

Fourth, the funding level in this compromise is a total of \$14 billion. This \$14 billion would be spread over the next 3 fiscal years. It is anticipated this funding level is required to initiate the half dozen or so 50,000 barrel per day synthetic fuel plants. Several additional plants would probably be built only on the basis of the tax credits provided in the Finance Committee's proposal.

COMPARISON WITH BANKING VERSION

I would now like to turn to a discussion of why this compromise proposal is an improvement to the Banking Committee's substitute which was defeated in the Senate a short time ago. First, I would like to remind my colleagues that the Banking Committee substitute had no provision for administering the synthetic fuels program. There was some likelihood that the administration of the program under the Banking Committee proposal would be in the existing Department of Energy. The Energy Department is notorious for being unable to make speedy and correct decisions.

The new substitute which I am urging my colleagues to cosponsor would provide a new Office of Energy Security. Even if the President

chose to locate this office in the Department of Energy, it would be a new entity, with new employees not subject to civil service, and would contain efficient administrators and financial experts to negotiate major contracts with the half dozen or so ventures for major synthetic fuel plants. I personally prefer this approach because it improves DOE.

Alternatively, the President may elect to keep the new Office of Energy Security outside the Department of Energy by locating it in another department, such as the Department of Defense or the Department of Treasury. Or, the President may elect to keep the Office of Energy Security within the Executive Office of the President.

The second major departure between this substitute and the Banking Committee approach relates to the second phase. The Banking Committee approach contained no second phase whatever. This compromise proposal does anticipate a second phase. It agrees with the Energy Committee in establishing a goal of 1.5 million barrels per day of production in the mid-1990's. In the compromise provision, this goal is flexible as is the date at which the Director of the program would submit a plan for the second phase to Congress. This is an important change from the Banking Committee approach because it tells American industry that we want industry to develop a major capability for producing synthetic fuels in this country.

The third major difference between this substitute and the Banking Committee approach is over the funding level. In the Banking Committee approach, only \$3 billion is authorized for the first phase of the synthetic fuels program. This compromise proposal offers an authorization of \$14 billion. I believe that \$14 billion reflects accurately the probable requirements to initiate commercialized demonstrations of the promising technologies in oil shale and coal as well as demonstrations of smaller plants related to biomass, particularly alcohol fuels.

Based on the information in the synthetic fuels report by the Budget Committee's Subcommittee on Synthetic Fuels, there are approximately nine large-scale commercial prototypes to be built to test the promising synthetic fuel technologies. I believe that about three of these plants will be initiated with tax credits provided by the Finance Committee bill. That leaves six plants to be initiated with incentive mechanisms we are providing today. The synthetic fuels report shows that price guarantees cost up to \$3 billion over the lifetime of each 50,000-barrel-a-day plant. In light of recent increases in world oil prices, it is hoped that price guarantees can be negotiated at lower levels, at roughly \$2 billion per price guarantee for each major synthetic fuel facility. This would obligate about \$12 billion for half a dozen plants. Another \$2 billion, more or less, would be available to provide loan guarantees.

In sum, I believe that the funding level proposed in this substitute represents an amount which the U.S. Government would likely have to spend to initiate construction of the commercial prototypes in the first phase of the synthetic fuels program.

COMPARISON WITH ENERGY COMMITTEE VERSION

I would now like to compare this compromise proposal with that offered by the Energy Committee. First, there is no new large Federal agency embodied in an Energy Security Corporation. Instead, the

Office of Energy Security offered in this compromise would be subject to the usual congressional oversight and administrative regulations. The only difference would be is that its employees would be outside civil service restrictions. This provision is designed to allow the Office to attract high-quality personnel immediately.

Second, this compromise proposal is flexible regarding the second phase. The Energy Committee bill contains an inflexible 1.5 million barrel per day goal and authorizes \$68 billion to achieve this. In effect, the Energy Committee bill says "Mr. Administrator, find a way, no matter how much it costs, to produce 1.5 million barrels of synthetic fuel a day by 1995. We'll give you at least \$68 billion and come back and ask us for more if you need it."

In contrast to this, our proposed compromise would leave the production goal at a desirable level, but allow flexibility. It is anticipated that the second phase plan not be initiated until at least some operational experience is gained from the first phase. In addition, the types of financial incentive mechanisms would be modified substantially for the second phase.

The third issue contains the types of incentive mechanisms offered. Compared to the Energy Committee bill, the proposed compromise eliminates three types of incentives which, in effect, substitute the Federal Government for responsibilities of the private sector. GOCO's are eliminated, joint ventures between the Federal Government and private companies are eliminated, and direct loans are eliminated. In order to insure that companies of relatively smaller financial strength can participate in the synthetic fuels industry, loan guarantees are left in the compromise proposal. In our estimation, loan guarantees provide less substitution of Federal involvement for private sector responsibilities compared to the alternatives which are removed from the Energy Committee proposal.

The fourth issue is the level of authorization. This compromise proposal contains no funding for the second phase at this time. The second phase of the synthetic fuels program may require only a few billion dollars or might require many tens of billions of dollars. It is inappropriate at this time to decide to authorize \$68 billion for that purpose.

The compromise proposal would authorize \$14 billion for the first phase compared to the Energy Committee's \$20 billion. I believe that \$14 billion is sufficient to accomplish the job. An amount larger than this would encourage investors in synthetic fuel plants to ask more of the Federal Government than they need. Of course, in the event that larger sums are actually needed, Congress could authorize larger sums in the next year or the following one.

OIL SHALE AND COAL IN COLORADO

I am sure that all of my colleagues are aware that Colorado contains by far the major share of this country's resources of oil shale and large coal reserves. In a relatively small area in western Colorado lies the fossil resources with the equivalent of potential energy supply from some OPEC nations. For many years I have studied oil shale resources and oil shale technologies. Recently, as the chairman of the Budget Committee's Subcommittee on Synthetic Fuels, I have studied in-

ly the relationship between the needs of the potential oil shale mines and the appropriateness of Federal incentives to help that they get started.

For many years that in Colorado the question is not whether we have an oil shale industry, but when and how big will it be. In candor, I must express to my colleagues that the size of the synthetic fuels program which we are embarking upon this week is a daunting project for western Colorado. The amount of mining that would have to be done for just one synthetic plant would be larger than any mining operation existing in the United States today. The cost that will come to construct and to operate the mines and the facilities will increase the population of western Colorado many times. As a result of oil shale development, I am concerned that the quality of the environment will not improve with the quantity of production. To this end, it is important that the processes which are used to process oil shale be environmentally sound. The rate of development of oil shale plants must be on the moderate pace to allow the optimization of the technology as they are first employed.

It is vitally important that every oil shale project in Colorado be carried out as it possibly can be. While I do not believe we can quantify the impact at this time, we know that there are finite limits to acceptable changes in air quality, water quality, or changes in patterns of water use that are acceptable in western Colorado. If each plant is extremely small and minimizes water use, western Colorado can accept a greater number of plants.

The separation between the first phase and the second phase of this year's synthetic fuels program is vitally important to Colorado. The first phase of the program is likely to result in four or more major pilot plants in Colorado. We should certainly not embark on the demonstration of any technology before a particular technology is demonstrated to be desirable in a full-scale commercial plant. As commercial plants themselves are built, I would hope that the companies would start them up slowly, testing the plants one module at a time so as not to cause environmental harm if problems arise, and so as not to cause undue financial hardship if changes are needed to be made. For the sake of the country, it is necessary that Colorado's oil shale resources be developed wisely.

In conclusion, Mr. President, let me reiterate that the compromise bill we are offering today largely improves the Banking Committee proposal the Senate did not adopt a short time ago. In particular, this compromise proposes an Office of Energy Security, establishes a mechanism for initiating a second phase, and greatly increases funds available compared to the Banking Committee bill. In contrast, compared to the Energy Committee bill, this compromise offers a small intrusion to the intrusion of the Federal Government into the private sector than the Energy Security Corporation would provide. It makes the second phase more flexible, and possibly much cheaper. And it reduces the amount of Federal Government substitution for private responsibilities. Further, it slightly decreases the amount of funding for the first phase and postpones a decision on funding for the second phase entirely.

Mr. President, a great deal of effort has been made in constructing this compromise proposal. I believe that the compromise is a superior

approach on the merits either to the Banking Committee or the Energy Committee bill. I urge my colleagues to adopt this compromise vehicle.

The Budget Committee of this Senate has looked into this issue. Based on the Synthetic Fuels Subcommittee's report I believe we can achieve the same objectives for \$14 billion, still an enormous amount of money, but we do not have to spend up to the larger amount. Believe me, to accept the approach which is embodied in this substitute amendment is not business as usual. I hope the Secretary of Energy understands that. You do not have to be for the administration's program to be concerned that there is an alternative. It is a \$14 billion alternative which will achieve the same results and will not trample on the rights of the States in the process.

The PRESIDING OFFICER. The Senator from Louisiana.

Mr. JOHNSTON. Mr. President, let me say first of all I was a member of the Budget Committee task force on synfuel, and that report, unless I am sadly mistaken, did not say that this job could be done for \$14 billion. Indeed, if I recall correctly, it did not endorse any particular figure for phase I. It did endorse the idea incorporated in the Senate Energy Committee bill that the commercialization of synthetic fuels be divided into two phases, the first phase to demonstrate one of a kind technologies, as in the Senate Energy Committee bill, and the second phase to involve the replication of those technologies. So it is the Senate Energy Committee bill that is entirely consistent with that Budget Committee report.

Let me just say very briefly, Mr. President, on this question of business as usual, I do not think the Secretary of Energy in calling the Tsongas-Hart amendment business as usual meant that in a deprecatory way to either of the sponsors of this amendment, but, rather, I think it was a rather accurate description of the fact that it would continue the authority for synthetic fuels in the Department of Energy where it has been since the Department of Energy was created. That is what is meant by business as usual.

Before that, it was reposed in the predecessors of the Department of Energy, that is, the Secretary of the Interior and the Bureau of Mines.

Mr. President, business as usual with respect to those departments has meant 52 years of no progress. It has been 52 years since the Bureau of Mines built those first retorts in Rifle, Colo., and we still do not have an operating commercial plant. That is what business as usual means.

There comes a time, Mr. President, when things get so severe that we have to break out of the mold of business as usual. We have done it many times in this country. For example, in World War I we created the U.S. Shipping Board Emergency Fleet Corporation and charged that group, an independent corporation very similar to the structure of this corporation, with the duty of building a merchant marine fleet in the United States. Previous to World War I we had no merchant marine fleet because the United States had respected the international treaties on maritime shipping.

We financed that corporation with \$2.5 billion, which was a tremendous sum in 1916. That independent corporation did the job, not

with business as usual but breaking out of the usual mold of bureaucracy in the Federal Government.

We have done it many other times: The War Finance Corporation in 1918, a separate corporation; the Reconstruction Finance Corporation, in 1932, spending a total of \$54.4 billion to get us out of the Depression. And there are many other examples from Amtrak to Comsat to the War Production Board, and others.

We create these corporations, Mr. President, not when we have business as usual but when there is some unusual need, when there is an unusual purpose to be accomplished by the corporation to which the independent corporate status is particularly and peculiarly appropriate. Such is the purpose today.

Why is an independent corporation appropriate for this purpose? Because, Mr. President, the kinds of decisions which this corporation will make with respect to synfuels are the kinds of decisions which call for a seasoned business judgment. They call for people who have made banking and financial decisions before.

There is not a professional, I would venture to say, Mr. President, in the Federal Government, or certainly not in the Department of Energy, who has ever made, or been called upon to make, business judgments with respect to banking or finance. They have not put together industrial enterprises. They have not built a big industrial plant, none of them. They have never been involved in risk-taking. They have never even been involved in management on a big scale.

What we propose, Mr. President, is to get into this five-man corporation men of seasoned business judgment, men who perhaps headed up some of America's large corporations, who know about risk-taking, and who can sit across the table from the Exxons and the other large corporations who may want to get into this business and be able to understand the elements of risk and be able to understand how far the United States as a country must go in giving financial aid in order to get the purpose accomplished, the purpose being, of course, to demonstrate these commercial technologies.

That is the reason for an independent corporation, Mr. President, so that we will have the benefit of that expertise.

We simply cannot fight that in the Department of Energy now. We simply do not have that even with the Assistant Secretaries, Mr. President. It is not structured that way. It is very important to have these independent corporations.

Mr. President, at this time, I yield the floor to my distinguished colleague from New Mexico.

Mr. DOMENICI. I thank my friend from Louisiana.

Just as a matter of reference, Mr. President, I ask the Senator from Colorado if he will cite for me the language in the synthetic fuels report—I am not saying it is not in there. I do not know where it is—that this will do the same as the energy bill.

Mr. HART. The Tsongas-Hart amendment will achieve the first-phase goals of testing technologies at a cost of \$14 billion. I am basing that on the testimony of our experts and upon the calculation that others and I have made that there will be certain industry response—in terms of the construction of facilities—to the Finance Committee's tax credit proposals—perhaps three or more commercial plants.

With the incentives in the Tsongas-Hart proposal, six or more different technologies, perhaps as many as a dozen, can be demonstrated for about \$14 billion. I was extrapolating from the statistics in that report plus the estimates of what the industry response to the Finance Committee will be.

I want to make it clear, because those were the terms under which that study was done, that that report does not make any recommendations. There are economic data and statistics in the report which support our approach.

If, in fact, the efforts of the Energy Committee and the sponsors of this substitute amendment are to test technologies in a first-phase mode, \$14 billion can do it; \$20 billion is not needed.

Mr. DOMENICI. I appreciate the clarification, because I could not find any example in the report, which was properly stated by the Senator. It was not a recommending report, it was an assessing report, from which people could make conclusions and draw premises for themselves upon which to base their own conclusions.

Mr. President, I did find, on page 204, a case II summary study by—I guess this is Cameron, which I think is one of the better firms—that by 1990, if we were to divide up and have oil shale at 300,000- to 400,000-barrel equivalent; coal at 400,000 to 450,000 equivalent, and oil sands for 20,000, it is their estimate that the total expenditure would be in the nature of—total investment of \$24 to \$29 billion.

The Senator is not agreeing or disagreeing with that in his previous statement, and I understand that, but if we are merely using our corporate entity to finance, with various finance mechanisms, that is a pretty good case study for what might happen by 1990, as I see it.

Mr. HART. If the Senator will yield, I think there is a difference between total investment by private corporations and Treasury exposure with incentives. What we are discussing here today is Treasury exposure, not the total investment of the private corporations.

Mr. DOMENICI. Ours is 20 and this is almost 30.

Mr. HART. Including private financing. What we are talking about is \$14 billion in Federal spending. We believe we can achieve the deserved results with \$14 billion in Treasury exposure, not total investment.

Mr. DOMENICI. Let me make just a few points for my fellow Senators. I really am sorry that the Senator from Colorado and the Senator from Utah assume that this National Synthetic Fuels Corporation is directed at taking away from the States significant rights that they presently have with reference to where, how, when, and if synthetic fuel is ever developed. I do not believe it does that.

On the other hand, I say to my good friend from Colorado, when we were passing a National Clean Air Act, which had a tremendous effect on the State of Colorado and the State of Utah and the State of New Mexico, in fact, it had some pristine preservation provisions in it that were in perpetuity. They were not \$20 billion worth. The Senator did not get on the floor and say, "We do not want you trampling on our rights, we want to have something to say about that in Colorado" or Utah or New Mexico.

That was a national program, with national significance, answering a national need, on which I, he, and many others happened to agree

that the way the Federal program was going was what we wanted. He did not argue about it and say "States' rights, do not tell us about pristine areas in our States." At that point, the Senator was here saying "That's Federal, national." And he did not say, "Do it for 5 years at a time subject to authorization or appropriation. We are getting rid of our oversight authority."

The Senator said, "Put it in that statute, because I think it is right."

Mr. HART. If the Senator will yield, it was also in the interest of Colorado to have clean air.

Mr. DOMENICI. It was in the interest of Colorado as determined by Gary Hart when he came to the floor 3 years ago as a Senator, subject to whatever he thought the clean air requirements of the State of Colorado were. Right now, the Senate is going to pass on what the national program in synthetic fuels should look like in one respect: With reference to the National Government providing financial incentives to develop pilot commercial projects, I think it is absolutely right that we not have one for Colorado and one for New Mexico and one for Utah and one for West Virginia and one for Pennsylvania. It is a national program to bring plants on board—and now let me clarify this.

Some would make it sound like we are going to develop 200, 300, or 400 plants in this country. The first phase is somewhere between 8 and 10 plants. And they are not all going to be in Utah or Colorado or West Virginia or New Mexico. In fact, they will be in many parts of the United States and I find nothing in this proposed law that the Energy Committee has before the Senate that says, "We waive State water law." Quite to the contrary, it says State water law governs in every respect.

We are not going to force anything where the resources are not there. We are not going to force that down any State's throat. We know that and everybody else knows that. If the technology and the resource and the environment do not accommodate, it will go somewhere else.

We are only talking about 8 or 10 plants; we are not talking about covering the landscape of the United States or putting 10 or 12 of them in any State. There are only 8 to 10 of them in all of America.

Why do you think coal State Senators are for it? They do not expect us to build oil shale conversion plants. They expect us to build coal liquefaction plants. Those two will use up most of the money anyway—at least, over half of it.

Likewise, I want to give an analogy to the Senate. The Tennessee Valley Authority has \$15 billion new authority for it to accomplish its goals in many States. It does some things in one and others in another. With that \$15 billion, they will build some new powerplants. I understand that they might even build some new nuclear plants. They will build some new transmission lines. Let me complete the analogy.

If the amendment of Senator Tsongas and Senator Hart were applied to the TVA authority, what we would say to them is, "We give you \$15 billion in authority to go out and do your job for your people under your charter, but before you can approve of any finance plan, we want congressional oversight. Bring it back up here and let the committees look at it, because Tennessee ought to look at the new powerplant before you build it." And we just do not do that.

Mr. HART. Will the Senator yield?

Mr. DOMENICI. I shall yield in just a moment.

Mr. HART. I just want to ask a question.

Mr. DOMENICI. Sure.

Mr. HART. Is the Senator from New Mexico suggesting that the Energy Security Corporation is another TVA?

Mr. DOMENICI. No, I am not.

Mr. HART. All right.

Mr. DOMENICI. In fact, it is much smaller and has far fewer kinds of authority. It is very limited, very restricted; \$20 billion, only certain projects, no more.

Mr. HART. The same concept, though.

Mr. DOMENICI. Not at all.

Mr. HART. So the analogy is not very good, is it?

Mr. DOMENICI. My analogy is good in terms of budget authority. We are not afraid to give an entity authority to do what we tell it to do if we challenge it right. We do not say, "Come back and don't do that in our State unless we look at it." That is what the Senator is saying, that before we give any of these loans, we want to look at it.

Either we are going to have a synthetic fuel program or we are not. There is no waiver of substantive law, no Clean Air Act being waived in this law. Nobody should think that. Again, I repeat, there is no waiver of water law in this bill. Whatever the law is, it is. If there is not enough water in New Mexico for one of these plants, it will not be built there.

The Government cannot condemn the price and take them away from anybody, nor can this Corporation.

The last point in this, a new independent office is what we are talking about in this bill, the substitute, a new independent office.

I say this, how independent is independent? I mean, we do not want a separate entity like the Energy Committee, but we want an independent office within the Department of Energy. We do not want this Corporation, but we do not think the Department of Energy can do it, but we want an independent office within the Department of Energy.

I will close by saying that we do expect the business community to build, own, and, hopefully, make a profit on synthetic fuel plants. The crux is this, there is no way they will sit down with the Department of Energy if we call it an independent office within the Department of Energy, or whatever we want to call it, and enter into the kind of business transactions that a \$3 billion plant requires.

We may hope they will. I am sure the good Senator from Massachusetts wants that to happen. But I am saying that it just is not going to happen.

The financial experts that testified before our committee said, "Well, we wish we could tell you that we do not need any new corporation or any separate entity, but in the final analysis we are not going to be able to enter into financial packages of the type required to bring this industry on board with the Department of Energy and bureaucrats."

We did not know about an independent office or we would have asked them that. "Could you work with an independent office in the Department of Energy, with the same kind of people, would that have worked?"

I think if we had asked they would have said "No." But I have to acknowledge that we did not ask that question.

Mr. TSONGAS. Will the Senator yield?

Mr. DOMENICI. I want to say that I agree with the Secretary of Energy in his letter to the majority leader on November 7 when he indicates that from the standpoint of bringing to the American energy scene a significant synthetic fuel demonstration, that the substitute offered by the Senators from Massachusetts and Colorado is not significantly better than the one we defeated this morning and most certainly, nowhere as good as the one the Energy Committee reported.

I think the Secretary's analysis is right. I hope the Senate will defeat the substitute and provide the American people with a real plan for an alternate source of energy.

Mr. TSONGAS. Will the Senator yield?

Mr. DOMENICI. I am pleased to yield. In fact, I yield the floor.

The PRESIDING OFFICER. The Senator from Massachusetts.

Mr. TSONGAS. Mr. President, I would like to inquire of the Senator from New Mexico, with whom I ordinarily agree on energy-related matters, the problem in this world is that no matter what issue we are talking about, right and wisdom do not always reside on one side. I am sure the Senator would agree with that.

Mr. DOMENICI. One hundred percent.

Mr. TSONGAS. The fact is that if we reject the Tsongas-Hart substitute, we are, in fact, saying that the Energy Committee was 100 percent right and the Banking Committee was 100 percent wrong.

Is that not the case?

Mr. DOMENICI. If we reject the Tsongas-Hart substitute, we are saying that the Energy Committee is 100 percent right—is that the question?

Mr. TSONGAS. That is right; and the Banking Committee is 10 percent wrong.

What we are in effect saying is that all the work of the Banking Committee, all the deliberations and the testimony, do not amount to anything. We have totally rejected that approach.

Mr. DOMENICI. Well, I guess one could say "yes" to that.

On the other hand—

Mr. TSONGAS. Now that I have the Senator saying the right things, let me continue.

Mr. DOMENICI. Wait a minute. I was answering the Senator's question and I want to finish.

On the other hand, the Energy Committee's bill is, itself, the result of diverse views, and one could start back 3 months ago and pick three proposals before the Energy Committee that are not in this, all different colors, shades, or dimensions of it.

Mr. TSONGAS. I acknowledge the point. I am the only Member in the Senate who actually serves on both committees.

I find it difficult to say that everything the Banking Committee did was invalid. That is why it was clear, when we had this kind of game of chicken with both committees coming headlong into a confrontation, that what we were going to lose in this battle was the possibility that both sides had something of merit.

We sat down and looked at both reports.

Now, what did we do? As the Senator knows on a number of issues the majority were much closer to the Energy Committee version. Certainly, on the dollars figure. Fourteen is a lot closer to 20 than 3. We have the particular plants. We can enumerate how we came up with the 14.

The second issue is the subject of the amendment.

So, clearly, the issue of the phase two approach is something we are in accord with.

The third issue is the corporation.

I sat in the Banking Committee listening to the various people argue against the Corporation. What we tried to do was say that perhaps the people who testified before the Banking Committee had some wisdom, and to put together a compromise that gave the fast-track capability, but did not run the risks of the Corporation.

My concern is that we ended up, for a number of reasons, before the body earlier today with a vote that, in essence, said that one side was right and the other side was wrong.

I would suggest that in the real world, life is not that simple.

What this compromise does is give people a chance to say "yes," what the Energy Committee did was valid, they worked hard and came up with a good work product. But the Banking Committee was also worthwhile, and the things they came up with deserve the consideration of the Senate.

That is why the compromise was put together, to say, in effect, that both committees worked, and worked hard. Both, I think, achieved significant results, and this is the amalgam of that wisdom. I think it should be voted for.

UP AMENDMENT NO. 735, AS MODIFIED

Mr. TSONGAS. Mr. President, I ask unanimous consent that the technical changes pointed out by the Senator from Louisiana which were in the original substitute, but because of the parliamentary situation were not in the perfected amendment, be agreed to—page 9 was the most obvious example.

The PRESIDING OFFICER. Is there objection?

Mr. JOHNSTON. Reserving the right to object, I have not seen the amendments. There will be no objection but—

The PRESIDING OFFICER. The Senator has the right to modify his amendment.

Mr. TSONGAS. I can withhold.

Mr. JOHNSTON. Mr. President, we have no objection.

Mr. DOMENICI. Will the Senator from Massachusetts yield 1 minute to me?

Mr. TSONGAS. Yes.

Mr. JOHNSTON. Mr. President, we have no objection.

The Senator does have that right.

The PRESIDING OFFICER. The clerk will state the modification for the information of the Senate.

The legislative clerk read as follows:

On page 9 of amendment No. 735, strike out lines 19 through 22.

The amendment, as modified, is as follows:

At the end of the amendment, proposed by the Senator from Louisiana (UP 733) add the following:

Provision of this title:

SHORT TITLE

SECTION 1. This Act may be cited as the "Energy Security Acts".

TITLE I—SYNTHETIC FUELS

SHORT TITLE AND TABLE OF CONTENTS

SEC. 101. (a) This title may be cited as the "Synthetic Fuels Act of 1979".

(b) TABLE OF CONTENTS.—

TITLE I—SYNTHETIC FUELS

Sec. 101. Short Title; Table of Contents.

Subtitle A—Findings and Purposes

Sec. 102. Findings.

Sec. 103. Purposes.

Sec. 104. General Definitions.

Subtitle B—Establishment of the Office of Energy Security

Sec. 110. Establishment.

Sec. 111. Authority of the Director.

Sec. 112. Annual Report.

Sec. 113. Authorization of Administrative Expenses.

Subtitle C—Production Goals of the Office of Energy Security

Sec. 121. Overall Production Goals.

Sec. 122. Production Strategy.

Sec. 123. Solicitation of Proposals.

Subtitle D—Financial Assistance

Sec. 131. Loan Guarantees Made by the Office of Energy Security.

Sec. 132. Price Guarantees Made by the Office.

Sec. 133. Purchase Guarantees Made by the Office.

Sec. 134. Limitations on Contracts.

Subtitle E—Water Rights

Sec. 141. Water Rights.

Subtitle F—Department of the Treasury

Sec. 151. Authorizations.

Subtitle A—Findings and Purposes

FINDINGS

SEC. 102. The Congress finds and declares that—

(1) the achievement of energy security for the United States is essential to the health of the national economy, the well-being of our citizens, and the maintenance of national security.

(2) depending on foreign energy resources can be reduced significantly by the production of synthetic fuels from domestic resources; and

(3) attainment of synthetic fuels production in the United States in a timely manner and in a manner consistent with the protection of the environment will require financial commitments beyond those expected to be forthcoming from nongovernmental capital sources and existing Government incentives.

PURPOSES

SEC. 103. The purposes of this title are—

(1) to stimulate development of synthetic substitutes for crude oil and conventional natural gas while minimizing Government involvement;

(2) to provide the information necessary to advance toward the goal of at least 1,500,000 barrels of oil per day of synthetic fuels in consideration of both the economic desirability and environmental acceptability of such action;

(3) to provide financial assistance to encourage and assure the flow of capital funds to those sectors of the national economy which are important to the domestic production of synthetic fuels;

(4) to encourage private capital investment and activities in the development of domestic sources of synthetic fuels and to foster competition in the development of the Nation's synthetic fuel resources;

(5) to test synthetic fuels technologies to determine their potential role in meeting the Nation's energy needs in terms of—

(A) their commercial viability;

(B) their environmental impact, including, but not limited to, water consumption, water pollution, and air pollution;

(C) their health and safety aspects, including, but not limited to, any carcinogenic effect;

(D) their effect on regional and local agricultural production;

(E) their social and economic impacts;

(F) their thermodynamic balances; and

(6) to foster greater energy security and reduce the Nation's economic vulnerability from disruptions in imported energy supplies.

GENERAL DEFINITIONS

SEC. 104. As used in the title the term—

(1) "concern" means any—

(A) person, or

(B) State, or any political subdivision or governmental entity thereof. Indian tribe or tribal organization, or

(C) combination of the aforementioned, which is engaged, or proposes to engage, in a synthetic fuel project or projects pursuant to this title;

(2) "financial assistance" means—

(A) guarantees of, or commitments to guarantee, indebtedness, including principal and interest (hereinafter referred to as "loan guarantees");

(B) contracts to purchase synthetic fuel, guarantees thereof, or commitments therefor (hereinafter referred to as "purchase agreements"); and

(C) guarantees of, or commitments to guarantee, the price received or to be received by a concern from the sale of synthetic fuel (hereinafter referred to as "price guarantee");

(3) "Indian tribe" means any Indian tribe, band, nation, or other organized group or community, including any Alaska Native village or regional or village corporation as defined in or established pursuant to the Alaska Native Claims Settlement Act which is recognized as eligible for the special programs and services provided by the United States to Indians because of their status as Indians;

(4) "person" means any individual, company, cooperative, partnership, corporation, association, consortium, unincorporated organization, trust estate, or any entity organized for a common business purpose;

(5) "State" means any of the fifty States, the District of Columbia, Puerto Rico, the Virgin Islands, Guam, American Samoa, and the Commonwealth of the Northern Mariana Islands;

(6) "synthetic fuel" means any liquid, gaseous or solid hydrocarbon (including mixtures of coal and petroleum) which can be used as a substitute for supplies of petroleum or natural gas (and for any derivatives thereof) derived from domestic sources of—

(A) coal, including lignite and peat;

(B) shale;

(C) tar sands, including those heavy oil resources which cannot technically or economically be produced using conventional or unconventional petroleum recovery techniques; and

(D) biomass, which shall include timber, animal and timber waste, municipal and industrial waste, sewage, sludge, oceanic and terrestrial plants, and other organic matter;

(7) "synthetic fuel project" means any facility located in the United States for the purpose of commercial production of synthetic fuel, including any necessarily related transportation or other facilities and including the equipment, plant, machinery, supplies, and other materials associated with the facility, including the land, mineral rights, services and working capital required directly for use in connection with the facilities for the production of synthetic fuels. In the case of a facility for the commercial production of synthetic fuel derived from

biomass, such term shall include a facility for the production of alcohol or other synthetic fuels derived from timber, animal and timber waste, municipal and industrial waste, sewage, sludge, oceanic and terrestrial plants, and other organic matter: *Provided*, That such term shall include any facility located in the United States and used solely for the purpose of commercial production of mixtures of coal and petroleum for direct use as a fuel.

SUBTITLE B—ESTABLISHMENT OF THE OFFICE OF ENERGY SECURITY

ESTABLISHMENT

SEC. 110. (a) For the purpose of achieving the national goals described in section 121, the President shall establish the Office of Energy Security as an independent Office in the appropriate Federal Agency, to be headed by a Director.

(b) The Director shall be appointed by the President, by and with the advice and consent of the Senate and who shall serve at the pleasure of the President. The salaries of both the Director and the employees shall not be subject to civil service.

AUTHORITY OF THE DIRECTOR

SEC. 111. The Director shall be responsible for determining the terms and conditions of financial assistance agreements and the selection of recipients of financial assistance.

ANNUAL REPORT

SEC. 112. (a) (1) The Office shall submit to the Congress and the President an annual report containing—

- (A) a general description of the Office's operations during the year;
- (B) a specific description of each project in which the Office is involved.
- (C) a status report on each such project; and
- (D) an evaluation of the contribution which the project has made and is expected to make in fulfilling the purposes of this title (including, where possible, a precise statement of the amount of domestic energy produced or to be produced thereby).

(2) The annual report shall contain financial statements prepared by the Office in accordance with generally accepted accounting principles consistently applied.

(b) The Director shall, not later than three years after the effective date of this title, submit a phase II plan to Congress or request for an extension. The phase II plan shall include an extension. The phase II plan shall include an evaluation of phase I and a determination of whether further involvement is necessary to achieve the goals of this Act. Contingent upon the phase II report's own recommendation for further Federal involvement the plan should reassess the goals of this Act and should include a formulation of a strategy, considering all practical means for the commercial production of synthetic fuels, that will achieve the newly stated goals with the minimum Federal involvement.

AUTHORIZATION OF ADMINISTRATIVE EXPENSES

SEC. 113. (a) The Office is authorized to make cash outlays not to exceed \$25,000,000 during the period ending September 30, 1980, for its reasonable and necessary administrative expenses. For purposes hereof, administrative expense shall be that portion of the Administration's office account for general and administrative expenses which includes salaries of personnel and consultants, expenses for computer usage, for space needs of the Office and similar expenses.

(c) The Director may make expenditures without further appropriation for reasonable and necessary administrative expenses not to exceed the limit provided in subsection (a) in any fiscal year and then only in accordance with a detailed statement of such expenditures which has been transmitted to the Congress, the Senate Committee on Energy and Natural Resources and the appropriate committees of the House of Representatives along with the President's budget for such fiscal year except that such expenditures for fiscal year 1980 may be made without such prior statement. It is the intention of this section that the Director's expenditures for administrative expenses shall reflect due consideration for economy and to the extent practicable shall be consistent with standards applicable to Federal agencies generally.

SUBTITLE C—PRODUCTION GOALS OF THE OFFICE OF ENERGY SECURITY

OVERALL PRODUCTION GOALS

SEC. 121. There is hereby established a national goal of achieving by 1966 the synthetic fuels production capability of at least 1,500,000 barrels per day of crude oil equivalent from domestic energy resources.

PRODUCTION STRATEGY

SEC. 122. In order to assure achievement of the national goal set forth in section 121 and the purposes of this title, the Office shall—

(1) within six months of the date of enactment of this Act, invite submission of proposals from interested concerns (hereinafter referred to as "bidders"), requesting financial assistance in the form of purchase commitments, price guarantees or loan guarantees, or a combination of the two, for the design, construction, and operation of synthetic fuel projects (hereinafter referred to as "projects"). The Director shall require that each proposal contain such information as necessary for the purposes of preventing selection of more than one project involving the same technology and insuring selection of projects which best serve the purposes of this title;

(2) not later than eighteen months after the invitation for proposals, select on a competitive basis to the maximum extent practicable up to twelve proposals which are deemed most likely to contribute to the purposes of this title and which each employ a different processing technology except that not more than six such proposals shall employ the same generic feedstock; and

(3) subject to the provisions of this title, enter into contracts with bidders providing for commitments to either purchase synthetic fuels produced by the proposed projects, guarantee price for the produced synthetic fuel or with public or private financing institutions for guaranteeing loans for design, construction, and operation of the proposed projects.

SOLICITATION OF PROPOSALS

SEC. 123. (a) Preference for selection of projects under section 122 shall be given to—

(1) the proposal which represents the least Federal financial commitment and the lower unit production cost within a given technological process, taking into account the amount and value of the anticipated synthetic fuel products; and

(2) in determining relative Federal commitment, in decreasing order of priority, preference shall be given to—

(A) price guarantees or purchase agreements; and

(B) loan guarantees.

(b) For the purposes of this section the term "qualified concern" means a concern which demonstrates to the satisfaction of the Office evidence of its capability to undertake and complete the design, construction, and operation of the proposed synthetic fuel project.

(c) Subject to the conditions of any contract for financial assistance, such contract shall be incontestable in the hands of the holder, except as to fraud, or material misrepresentation on the part of the holder.

(d) Any contract for financial assistance shall require the development of a plan, acceptable to the Office, for the monitoring of environmental and health related emissions from the construction and operation of the synthetic fuel project. Such plan shall be developed by the recipient of financial assistance after consultation with the Administrator of the Environmental Protection Agency and the Secretary of Energy. Any contract entered into by the Office for financial assistance must include consultation with appropriate State agencies in the formulation of the applicant plan acceptable to the Director of the Office of Energy Security.

(e) The Office may, in its sole discretion and upon request of the recipient of financial assistance, reimburse such recipient for any reasonable costs in connection with a synthetic fuel project if construction of such project cannot occur within five years of the award of such financial assistance due to any Government regulatory action, or lack of action which, in the judgment of the Office, could not

have been reasonably foreseen by the recipient and such reimbursement is consistent with the purposes of this title.

(f) No financial assistance may be provided unless an application therefor has been submitted to the Office in such manner and containing such information as the Office may require.

(g) The Office in providing financial assistance shall give due consideration to maintaining competition.

(h) The Office shall give priority consideration to applications for financial assistance from those concerns proposing a synthetic fuel project in those States which, in the judgment of the Office, indicate an intention to expedite all regulatory, licensing, and related Government agency activities related to such project.

(i) Every applicant for financial assistance under this Act shall, as a condition precedent thereto, consent to such examinations and reports thereon as the Office or its designee may require for the purposes of this title. The Office shall require such reports and records as it deems necessary from any recipient of financial assistance in connection with activities carried out pursuant to this title. The Office is authorized to prescribe the manner of keeping records by any recipient of financial assistance and the Office or its designee shall have access to such records at all reasonable times for the purpose of insuring compliance with the terms and conditions upon which financial assistance was provided.

(j) Each price guarantee under section 132 or a purchase agreement under section 133 shall specify in dollars the maximum amount of the liability of the Office thereunder.

(k) With regard to synthetic fuel project proposed by a concern whose rates are regulated, the Office is authorized to consider as a factor in any decision to award financial assistance whether the regulatory body, or bodies, are likely to issue a ratemaking decision which will protect the financial interests of the investors and the Office.

(l) Whenever the Office, by one or more actions, awards a combination of forms of financial assistance for a single synthetic fuel project, the Office shall insure that the recipient of such financial assistance shall bear a reasonable degree of risk in the construction and operation of such project.

SUBTITLE D—FINANCIAL ASSISTANCE

LOAN GUARANTEES MADE BY THE OFFICE OF ENERGY SECURITY

Sec. 181. (a) (1) The Office is authorized, on such terms and conditions as the Office may prescribe, commit to, or enter into loan guarantees against loss of principal and interest on bonds, notes, or other obligations (including refinancing thereof) issued solely to provide funds to any concern for a synthetic fuel project. Loan guarantees shall be awarded to persons participating in a project, rather than to a project itself. The Director shall provide a loan guarantee only upon a finding that such a guarantee is needed to ensure the participation of the person, in light of the financial strength and resources of that person in relation to the costs of that person's participation in the project. Loan guarantees shall be limited to 75 per centum of the amount that such person has at risk in the project. Amounts not included as at risk shall include mines not associated with the conversion process, and costs deducted due to investment tax credits.

(2) Any guarantee made by the Office under this section shall not be terminated, canceled, or otherwise revoked, except in accordance with the terms thereof, and shall be conclusive evidence that such guarantee complies fully with the provisions of this title and of the approval and legality of the principal amount, interest rate, and all other terms of the securities, obligations, or loans and of the guarantee.

(b) If the Office determines that—

(1) the borrower is unable to meet payments and is not in default; it is in the public interest to permit the borrower to continue to pursue the purposes of such project; and the probable net benefit to the Office in paying the principal and interest due under a loan guarantee agreement will be greater than that which would result in the event of a default;

(2) the amount of any payment which the Office would be required to pay shall be no greater than the amount of principal and interest which the borrower is obligated to pay at that time; and

(3) the borrower agrees to reimburse the Office for such payment on terms and conditions, including interest, which are satisfactory to the Office,

then the Office is authorized to pay the lender under a loan guarantee agreement, an amount not greater than the principal and interest which the borrower is obligated to pay.

(c) The Office shall establish such terms and conditions for loan guarantees under this title as necessary to implement the purposes of this title and insure the prompt repayment of loans.

(d) The Office may not enter into any contract providing a Federal loan guarantee of an amount in excess of \$500,000,000 unless both Houses of Congress have been notified in writing of such proposed contract and thirty days of continuous session of Congress have expired following the date on which such notice was transmitted to the Congress and both Houses of Congress have not adopted, within such thirty-day period, resolutions disapproving such proposed contract.

(e) Guarantees may be made only to the extent appropriated funds are available. Appropriated funds shall remain available until termination of all guarantees.

(f) The terms and conditions of loan guarantees shall provide that, if the Office makes a payment of principal or interest upon the default by a borrower, the Office shall be subrogated to the rights of the recipient of such payment (and such subrogation shall be expressly set forth in the loan guarantee or related agreements).

PRICE GUARANTEES MADE BY THE OFFICE

SEC. 132. The Office is authorized on such terms and conditions as the Board of Directors may prescribe, commit to, or enter into price guarantees providing that the price that a concern will receive for all or part of the production from a synthetic fuel project shall not be less than a specified sales price determined as of the date of execution of the commitment or the price guarantee. No price guarantee shall be based upon a "cost plus" arrangement or variant thereof which guarantees a profit to the concern except that if the Office determines in its sole discretion that such project would not otherwise be satisfactorily completed or continued and that completion or continuation of such project would be necessary to achieve the purposes of this title, the sales price set forth in the price guarantee may be renegotiated.

PURCHASE GUARANTEES MADE BY THE OFFICE

SEC. 133. (a) The Office is authorized, on such terms and conditions as the Office may prescribe, commit to, or enter into or commit to enter into purchase agreements for all or part of the production from a synthetic fuel project. The sales price specified in a purchase agreement shall not exceed the estimated prevailing market price as of the date of delivery, as determined by the Office, unless the Office determines that such sales price must exceed such estimated prevailing market price in order to insure the production of synthetic fuel to achieve the purposes of this title.

(b) The Office in entering into, or committing to enter into a purchase agreement shall require—

(1) assurance that the quality of the synthetic fuels purchased meets standards for the use for which such fuels are purchased;

(2) assurances that the ordered quantities of such fuels are delivered on a timely basis; and

(3) such other assurances as may reasonably be required.

(c) The Office is authorized to take delivery of synthetic fuels pursuant to a purchase agreement and to sell such synthetic fuels to a person. In any case in which the Office accepts delivery of and does not sell such synthetic fuels to a person, such synthetic fuels shall be purchased by the Federal Government for use by an appropriate Federal agency. Such Federal agency shall pay the prevailing market price, as determined by the Secretary of Energy, for such synthetic fuels from sums appropriate to such Federal agency for the purchase of fuels.

(d) The Office is authorized to transport and store and have processed and refined any synthetic fuels obtained pursuant to a purchase agreement under this section.

LIMITATIONS ON CONTRACTS

SEC. 134. Contracts entered into under section 122 shall be subject to the following conditions:

(1) no contract shall require or permit advance payments;

(2) loan guarantees may be employed only if the Director determines that the purposes set forth in section 103 could not be achieved through purchase commitment contracts alone;

(3) all contracts must be entered into before October 1, 1983;

(4) no contract may commit the Federal Government to purchases beyond the seventh year of synthetic fuels production from a project, unless both Houses of Congress have been notified in writing of such proposed contract and thirty days of continuous session of Congress have expired following the date on which such notice was transmitted to the Congress and neither House of Congress has adopted, within such thirty-day period, a resolution disapproving such proposed contract;

(5) any purchase commitment contract shall provide that the Office retains the right to refuse delivery of the synthetic fuels involved and to pay the concern involved an amount equal to the amount by which the price for such synthetic fuels as specified in the contract involved exceeds the market price, as determined by the Secretary of Energy, for such synthetic fuels on the delivery date specified in such contract;

(6) with respect to any concern, including any other person who is substantially controlled by such concern (as determined by the Secretary of Energy), the Director may not award contracts for commitments to purchase more than fifty thousand barrels per day equivalent of synthetic fuels, or make loan guarantees for design, construction, and operation of a plant designed to produce over fifty thousand barrels per day equivalent of synthetic fuels; and

(7) any purchase commitment contract shall commit the Government to purchase fixed amounts of fuels at fixed prices adjusted by a formula that may take into account inflation, world oil prices or such other prices as the Director deems relevant, except that project costs may not be considered as a factor.

SUBTITLE E—WATER RIGHTS

WATER RIGHTS

SEC. 141. (a) Nothing in this title shall (1) affect the existing jurisdiction or authority of the States and the United States over waters of any stream or over any ground water resource, including the authority to determine or allocate rights to the use of waters of any stream or any ground water resource; (2) alter, amend, repeal, interpret, modify, or be in conflict with any interstate compact made by any States; or (3) confer upon any non-Federal entity the ability to exercise any Federal right to the waters of any stream or to any ground water resource.

(b) No project constructed pursuant to the authorities of this title shall be considered to be a Federal project for purposes of the application for or assignment of water rights.

SUBTITLE F—DEPARTMENT OF THE TREASURY

AUTHORIZATIONS

SEC. 151. (a) There is authorized to be appropriated for purposes of this Act \$14,000,000,000 without fiscal year limitation to be allocated as follows: \$4,000,000,000 in 1980, \$4,000,000,000 in 1981, and \$6,000,000,000 in 1982 as well as \$25,000,000 for annual administrative costs. Such moneys shall be deposited within the Treasury in a separate account which shall be available to the Director for the purpose of carrying out the purposes of this title.

(b) On the basis of notification to the Secretary of the Treasury of financial assistance by the Office, the Secretary of the Treasury shall reserve within the synthetic fuel account an amount equal to the known and estimated liabilities of the Office. As amounts become available for this purpose, the Director shall repay to the general fund of the Treasury an amount equal to all lending which has been extended to the Office.

Mr. TSONGAS. I yield to the Senator from New Mexico.

The PRESIDING OFFICER. The Chair asks whether it is correct to assume that the Senator from Massachusetts wishes to so modify his amendment.

Mr. TSONGAS. Yes.

The PRESIDING OFFICER. The amendment is so modified.

Mr. DOMENICI. I wish to comment on the remarks of the Senator from Massachusetts as to the hearing and the wisdom and the knowledge gained in the Banking Committee and why we do not have a little of both in the bill.

I do not know whether we can end up with some of what the Banking Committee wanted or not. If it comes to using a new, independent office versus the Synthetic Fuels Corporation, both of which are new, there is no evidence here that we are going to save any money in one versus the other.

From my standpoint, I do not think there is a compromise. I think it is either what the Energy Committee said, from my standpoint, or we are not going to get any synthetic fuel. It is that important. We are not going to get a synthetic fuel industry base diversified and on board in the shortest period of time, with the least amount of Federal dollars invested. If that is the case, then we are going to run into each other on that issue: the size, the kind of plants, the diversification.

Maybe the Senator has something that would be different from our approach. But I opt—and I believe the Senate should opt—for a corporate entity with a charter versus a new, independent office, both of which are new.

Mr. TSONGAS. Mr. President, I yield to the Senator from Wisconsin; but, first, I point out that the testimony before the Banking Committee, by a broad spectrum of interests, suggested that the Banking Committee version did have merit.

Mr. PROXMIRE. Mr. President, I congratulate the Senator from Massachusetts and the Senator from Colorado. This is a genuine compromise. It goes right down the middle.

For example, with respect to the production goal, it insists on the Energy Committee's goal of 1.5 million barrels a day production for 1995. That is the same goal as the Energy Committee originally provided. We did not have a goal in our Banking Committee bill. So it maintains the 1.5 million barrels a day goal for the same date.

Second, it provides, as I understand it—and the Senator from Massachusetts can correct me if I am wrong—for approximately five times the authorization that the Banking Committee did. It goes from \$3 billion to \$14 billion; and it is closer, therefore, so far as the amount is concerned, to the Energy Committee's \$20 billion figure. It certainly is a reasonable compromise from that standpoint, and a figure that can easily be supported.

Mr. TSONGAS. Mr. President, will the Senator yield?

Mr. PROXMIRE. I yield.

Mr. TSONGAS. If the Senator is interested, later we can go into how we arrived at that figure, rather than the approach that we used elsewhere.

Mr. PROXMIRE. The reason why I stress that is that if there was one weakness in the Banking Committee bill—and, of course, I thought it was a good bill, or I would not have offered it—it was that the \$3 billion authorization obviously was too little. There was a general consensus that it was too little. I believe that the correction made by the Senator from Massachusetts in his amendment is a change which

should meet the objections of many Members of the Senate who voted against the Banking Committee bill, and I hope it will win support for what the Senator from Massachusetts and the Senator from Colorado are offering.

In the third place—and this is a very important distinction from the Energy Committee bill—in phase I, the Tsongas-Hart proposal provides no duplication; that is, no plants of duplicate technology shall be financed in phase I.

That is extremely important, because with limited resources available in our economy, with the likelihood of inflation in the industry if we go through with a crash program to finance everybody in sight, I think the elimination of duplication which the Senators provide is of greatest importance.

In addition, the Tsongas-Hart proposal provides for completion guarantees, which is also provided by the Energy Committee bill—that is, the guarantees will provide for the protection of the plant from regulatory risk. But it does not provide—and I think this should be very important to many Members of the Senate—for Government-owned, contractor-operated plants.

A number of Senators, including Senators who voted against the Banking Committee bill, have told me one part of the Banking Committee bill which they favored was the provision restricting Government-owned, contractor-operated plants.

So, in substance, I think the Senators have offered an excellent amendment, one that should win the support of a substantial majority of the Senate. As the Senator from Massachusetts brought out so well in the colloquy, it is a genuine compromise. It takes the strength of both the Banking Committee bill and the Energy Committee bill.

It is appropriate that the one Member of the Senate who is a member of both committees is the author, together with Senator Hart, of the compromise proposal.

Mr. HART. Mr. President, given the intention of the floor manager of the bill to move to table the amendment, I would like to make some final comments, as one of the cosponsors of the amendment.

The Senator from Louisiana and the Senator from New Mexico have stated over and over again their respect and admiration for the Secretary of Energy and his Department, as to what should be done here.

It seems to me that if they had that much respect for him, they would place the administration of this program in his hands.

We are talking about creating a board of people who are experts in business—economics and finance, some background in energy, management, and all the rest. I cannot think of anyone who qualifies under those categories any more than Charles Duncan. That is what we hired him for—to run the public aspects of the energy program in this country.

If we have gone to all that trouble to create an agency, to give it responsibility, consolidate dozens and dozens of bureaus and offices in the Government under one roof, find the best person in the country to run it, what are we doing? We ask him to create something outside that Department and find a lot of people to run it. I do not understand that.

If the Secretary of Energy has the respect that the floor managers suggest—and he does so far as this Senator is concerned—I think he should run this program.

Mr. JOHNSTON. Mr. President, will the Senator yield?

Mr. HART. I yield to the Senator from Louisiana.

Mr. JOHNSTON. Under the Tsongas-Hart amendment, we are not even sure that it would be the Secretary of Energy; because in section 110(a), which creates this separate office, it says:

The President shall establish the Office of Energy Security as an independent office in the appropriate Federal agency.

“Appropriate Federal agency” is not defined, so that could be the Department of Energy. It could be the Environmental Protection Agency. It could be the Department of the Interior, which now has control over coal matters. It could be the Defense Department. It could be any number of different departments.

I am willing to assume for the purpose of debate that it would be in the Department of Energy; but if it is so clear that Duncan is the man, I do not know why the Senators did not name the Department of Energy.

Mr. HART. I suspect that it was the very reason stated in support of the Energy Committee bill: The President has to have flexibility. What we are doing is giving the President some flexibility.

Mr. TSONGAS. I will explain why it was written that way.

There was conflicting sentiment as to whether the Department of Energy was more appropriate—as I think it would be and as Senator Hart thinks it would be. The argument also is made that the Department of the Treasury, given its unique capability, should be the appropriate agency.

We decided that it should be left the way it was and give the President the right to choose which of the two he preferred.

It seems to me that that flexibility rather than being an impediment to its consideration, would be a strong incentive to vote for it.

Mr. HART. We also have heard the floor managers talk about attitudes of business and what business people are saying, what will induce them to invest in an industry which is not even marginally profitable at the present time.

The Budget Committee, on which I serve, has heard testimony from the Committee on Economic Development, which is composed of a dozen or two dozen of the largest financial institutions in America, and they testified that they do not want an Energy Security Corporation.

We have heard statements by representatives of thousands, if not tens of thousands, of small business people in this country. They do not want an Energy Security Corporation.

So the argument about what is attractive or not attractive to the business community seems to be kind of waxing and waning here, depending on who one listens to.

I point out one other thing: We have heard a lot in this Senate and will continue to hear a lot about a balanced budget. A lot of people, including the Senator from Colorado, say we have to balance the Federal budget.

Let us look at that a minute. Are we going to balance the Federal budget by adding a 3-percent increase in 1980, a 5-percent increase in

1981, and 5-percent increase in 1982 for defense spending? Are we going to balance the Federal budget by allocating \$88 billion to a Synthetic Fuels Corporation? Are we going to balance the Federal budget by continuing to go outside the budget?

One of the ways we are going to balance the budget, apparently, is to have in effect what is called off-budget allocation of revenue to this autonomous body. We will be able to then go to the American people and tell them we are balancing the budget while at the same time putting tens of billions of tax dollars in an autonomous body.

In any case, I think the American people should look carefully at what we are doing here with regard to a balanced budget.

Mr. President, I think it is clear that this proposal by the Senator from Massachusetts and the Senator from Colorado has achieved part of its goal. I believe very strongly, if the Senator from Massachusetts and I had not offered this, we would not see this "dear colleague" at our desk today signed by the distinguished floor managers of the bill making some important changes in their legislation.

I just happen to believe if they had not been faced with the challenge, holding into question the structure and the means by which this entity is going to operate, the amount of money, the first and second phase, we would not see these.

So I am happy that there has been some recognition of substantial concern in the Senate about this whole proposal. So we are part way home.

There are four questions that are at issue here. The first is how to achieve the goals of a first phase of a domestic synthetic fuels industry, the most effectively and efficiently.

The Senator from Massachusetts and I believe the way to do that is through our amendment which allocates \$14 billion instead of the Energy Committee's \$20 billion. And we believe the record supports that level of commitment. So we have the same results for \$6 billion less money.

The second issue is how to achieve accountability by the people who are going to be responsible for this tax money. I believe under the constitutional system that we have the best way to do that is to require the agencies of the administrative branch that have the responsibility for administering energy-related programs in this country to run this program to submit their budgets to the appropriate committees of Congress, have them authorized and appropriated on an annual basis and have week-by-week oversight of their activities.

It is clear as the Sun comes up in the morning that the Energy Security Corporation is clearly an attempt to bypass that whole structure, and I think it is only marginally constitutional.

The third question is how to maximize private investment in that domestic synthetic fuels industry. It is a question of the kind of economic system we are going to have.

Mr. President, we are at war of sorts, and it is clear every day that we pick up the newspapers the kind of war it is. It is economic war; it is political war. It is a very, very serious war, and most of it surrounds energy and economic issues. But we are not shooting at each other. We are not shooting at each other yet, and we all pray we will not. Until we do start shooting at each other, we do not need to sus-

pend the constitutional structure of government or the economic system we have. We can provide incentives for private capital to come into this business on a long-term basis. We can keep the Government out, and we can protect essentially a free market in this emerging industry.

We do not have to waive the economic system or the constitutional system to achieve this industry, and that is what is at issue here.

Finally, speaking once again regionally I think the issue is how to protect the areas of the country that are going to be most affected. It is just the reverse of what the Senator from New Mexico said. It is, in fact, an attempt to protect the quality of the life of the people in the regions who will be called upon to develop these energy supplies. It is exactly like the Clean Air Act amendments, as a matter of fact.

What we are being asked to do here is for at least two major regions of this country to sacrifice that quality of life in the effort to solve the overall energy problem. I do not think we are at that dire strait.

If there is a problem facing every American today, it is a sense of losing control of their lives, and I think those of us who represent one part of the country or the other have an absolute obligation under our oaths of office to see that the people we represent do not further have the sense of losing control of their lives. I can say with all candor and all seriousness to my colleagues that the people I represent feel very strongly that Washington cares less and less about what happens to them. They have a strong feeling that Congress is prepared to take extraordinary measures to create entities outside the system that was designed to protect their interests in order to solve a very serious problem.

I do not think we have to go that far. I do not think we have to sacrifice the ability of this elected official or any other to represent on a daily basis the needs and interests of the people that we are sent here to represent in order to solve that problem.

We can have synthetic fuels. We can develop oil shale and coal. We can do a lot of these things, but we do not have to step outside the structure of government that we have and we do not have to sacrifice the legitimate needs and concerns of a whole region of this country.

The PRESIDING OFFICER (Mr. Bradley). The Senator from Louisiana is recognized.

Mr. JOHNSTON. Mr. President, we are very aware of the hopes and aspirations and concerns of the people of all States here concerned, particularly those in the State of Colorado, because in Colorado we have, of course, the principal deposits of oil shale. We have been trying to get those deposits proven on a commercial basis, as I have said before, since 1916, and the predecessors of the Department of Energy in this responsibility, the Bureau of Mines, the Department of Interior, and even the Department of Energy have been unable to do so.

Mr. President, we have not waived any laws at all designed for the protection of Colorado or other States. The Clean Air Act, the Clean Water Act, all the rest are still applicable, fully applicable, not waived at all in this bill. The full environmental impact statement is preserved.

There is indeed no difference among the Banking Committee bill, the Tsongas-Hart bill, and this bill, in terms of protection for the State of Colorado or protection for any other State. That is not involved.

As one follows the debate and as one heard the Senator from Colorado speak just a moment ago, one would get the impression that somehow their bill is more safety oriented and is more oriented toward clean aid and clean water.

Mr. President, it provides most of the same mechanisms we provide for loan guarantees and price guarantees. That is not the difference.

The difference is, first of all, whether you have the amount of money necessary in their so-called compromise. They have \$14 billion; we have \$19 billion for synfuels, excluding biomass. And the reports, including the very report that the Senator from Colorado is the chairman of, the Budget Committee synfuels report, which suggests if you are going to have 8 to 10 to 12 plants, the \$14 billion is not going to do it.

Second, there is no difference in the level of protection provided in their amendment and our amendment. Our amendment provides 100 percent full protection as provided under Federal law, such as the National Environmental Policy Act, the Clean Air Act, and other acts. Their amendment provides similar protection. There is no difference there.

The principal difference is in addition to this level of funding the fact that our Energy Committee bill creates a separate corporation that will be run by five businessmen who will have experience in making the kinds of decisions which they will be called upon to make.

That is the center point of the Energy Committee bill.

Think for a minute about what this corporation will have to do, when it is created. It will be called upon to negotiate with, let us say, Exxon because they happen to have one of the technologies that probably should be developed. It is called the Exxon donor solvent. It is a coal liquefaction process that as the title suggests involves a solvent. They have a particular kind of process. They are probably farther along in it than anyone else in the world. So this corporation will be called upon to sit across the table with Exxon and make a business deal. What is that business deal? It will involve the question of how much is necessary to get Exxon to go into the process.

In order to make that evaluation, you have to have experience in high finance. A first level bureaucrat in the Department of Energy, and there are plenty of top-notch ones, has never put together an industrial plant, has never made business decisions, and has never had to deal with Wall Street. He has never had to raise large sums of capital, \$2 billion to \$3 billion, and he has never had to assess an evolving technology to determine whether or not that technology is a high risk, a low risk, or something that needs a great deal of Federal involvement.

The kind of people whom we anticipate and envision on this independent board will be the kind of people who have made those kinds of decisions, who will be able to work out the best deal for the American people so that they will be able to give such financial incentives, whether in the form of loan guarantees, price guarantees, completion guarantees, joint ventures, or in those limited last resort kind of situations of a Government-owned, company-operated plant, which we frankly do not expect will ever be built because we think it can be done under the other financial methods provided for in our legislation. Nevertheless, they will be able to put together a package, Mr. President, of those different kinds of financial incentives and be able to work out the best

deal for the American people. That just cannot be done, you do not have that kind of skill, in the Department of Energy.

So, Mr. President, we think it is quite clear that the Energy Committee bill is the only practical way to get away from what the Secretary of Energy calls business as usual. Business as usual is not meant to be a deprecatory phrase in relation to the Department of Energy because, after all, the Secretary of Energy runs that Department, but it means we have got to break out of that mold of using full-time career bureaucrats in the Department of Energy, and I am not using that term "bureaucrat" as a label of derision here, but they simply do not have that kind of experience, and it calls for a different level of experience.

Mr. President, I think the matter has been fully developed. I would like to ask if the Senator from Massachusetts has some more remarks he would like to make at this time.

Mr. TSONGAS. One minute would be all I would need. Is the Senator from Louisiana finished and has he completed his remarks?

Mr. JOHNSTON. Yes, I will yield the floor at this point, Mr. President.

The PRESIDING OFFICER. (Mr. Baucus). The Senator from Massachusetts.

Mr. TSONGAS. Mr. President, we have argued this now for 2½ hours. I think the point has been made. I would simply say to my colleagues that one could not have sat through the deliberations of both committees without gaining respect for the work product of both.

What we have before us now is an opportunity for each Member of the Senate to acknowledge the fact that both committees worked hard, that both had wisdom in their work product. What we are trying to do is to obviate the unfortunate situation that when we take either one side or the other we lose, perhaps, a better work product in that process.

I respect both of the committees because I serve on them, and I spend a great deal of time in their deliberations, and I hope this compromise will be viewed as that, and when, however, the votes comes out, hopefully affirmatively, that the best of both committee bills will then become the language of the Senate, and which it will embrace in the final passage. I yield back the remainder of my time.

Mr. HART. Mr. President, briefly let me just respond to the Senator from Louisiana. When he says there are no substantive differences between this amendment and that of the proposal of the Energy Committee, I cite to him the following differences in our bill on page 13 we have the following provision:

Any contract entered into by the Office—

Namely, the Office of Energy Security—

for financial assistance must include consultation with appropriate State agencies in the formulation of the applicable plan acceptable to the Director of the Office of Energy Security.

That is not in the Energy Committee's bill.

Further, with regard to States' rights of water, and so on, I urge him to look at the bottom of page 21, section 141 of our bill which says:

Nothing in this title shall affect the existing jurisdiction or authority of the States and the United States over waters of any stream or over any ground water resource, including the authority to determine or allocate rights to the use of water of any stream or any ground water resource.

That language is not in the committee's bill. Those are very important measures.

Mr. JOHNSTON. May I say to the Senator that our bill does not in any way affect water rights and indeed the fact that the Senator says it does not affect water rights does not take away from the fact that the Energy Committee bill does not affect it either. We did not say it does not affect it because we did not provide for that. But we do have, and I am advised by the staff we do have, a provision on water rights that is virtually identical to that just described, on page 140 of the bill, section 178 which reads:

Nothing in this Title shall (1) affect the jurisdiction of the States and the United States over waters of any stream or over any ground water resource.

It is an identical provision I am advised by the staff.

Mr. HART. Third, the Senator from Louisiana talks about the bureaucrats who have no experience. The proposal, the substitute proposal, of course, creates a separate office to administer the incentive program which we provide for, and provides further that the people who work in that, including its Director, would be outside the civil service laws. This would enable the Secretary of Energy to go to the type of talent which the Senator from Louisiana feels is important to administer this program to get outside the governmental civil service, to find people who have business, financial, and energy backgrounds. So I think the sponsors of the substitute measure have taken into consideration one of the areas that the Senator from Louisiana feels is very important in the Energy Committee's approach.

We just keep it in the normal activities of the Government that this Senator feels are so important to achieve the protections of our States and regions that are not represented in the Energy Committee's bill.

Mr. JOHNSTON. Mr. President, I yield to the Senator from New Mexico.

Mr. DOMENICI. I thank my good friend. I will take just 2 minutes, if the Parliamentarian will advise me when I have used that time.

As the Senator from a Federal State or a State with a great deal of Federal land, much like that of my good friend from Colorado and my good friend from Utah, I am not the least bit concerned that this bill is forcing my State, forcing any State with Federal lands, to do anything that is not going to ultimately happen in this country, and I do not see any waiver of environmental laws.

I call to my colleagues' attention page 140 of our bill, section 178 on water rights. There you have absolute and unequivocal language protecting the permitting and appropriation system in terms of water within the individual States. It is almost identical language in terms of that particular concern, resource concern.

I also call to their attention page 83, section 123(e). Those States that express a willingness to be part of this program and want to expedite it, and get a preference, I think there is ample indication that they are going to work together.

Finally, let me say, if I understand the argument of the proponents of the amendment, and I have the greatest respect for both of them, I understand they will argue and are saying this: The same level of activity in the development of synthetic fuel can be obtained under

their bill, they say, as under the Energy Committee's bill, the same level of activity.

The same level of activity. They would say, "We do not need the corporation, and we use less money."

Well, I do not agree on either of those, but let me agree, for the sake of this argument, that they will produce the same level of activity in the development of synthetic fuels. Then I would ask, if that is true, then how can ours by shoving something down the throats of the States, be environmentally degrading and denying rights to the States?

If we are going to get the same degree of activity under both bills, I assume it will create the same kinds of plants and the same synthetic conversion processes, so either we are going to get there or not get there, and if we are going to get there, then it seems to me the argument is not one that ours does more damage at all. They have to be the same. A 50,000-barrel conversion plant under one of these processes, built under their proposal or under the Energy Committee's, has to be the same kind of plant. If we are going to get to the same place with the same kind of activity, how could one argue that ours will cause more damage than theirs? I would guess the argument is we will not get there unless we do it in a way similar to that recommended by the Energy Committee.

Mr. JOHNSTON. Mr. President, I do not want to cut anybody off. We have debated this matter now for a couple of hours. So I move to table——

Mr. HART. Mr. President, will the Senator yield, so that I may respond to the Senator from New Mexico?

Mr. JOHNSTON. Oh, yes.

Mr. HART. If I may say so, in response to the Senator from New Mexico, the difference is whether the elected Representatives in Congress have the opportunity of overseeing those two separate governmental agencies. That is the fundamental difference.

Mr. ROBERT C. BYRD. Mr. President, will the distinguished Senator from Louisiana yield?

ORDER OF PROCEDURE

Mr. JOHNSTON. I yield briefly to the majority leader.

Mr. ROBERT C. BYRD. Mr. President, I ask unanimous consent that upon the disposition of this amendment, the distinguished Senator from Maine (Mr. Muskie) be recognized to proceed to the consideration of the conference report on the concurrent resolution on the budget. That is a privileged matter, and I would like for the Senate to dispose of that this afternoon if at all possible.

Mr. JOHNSTON. Mr. President, reserving the right to object, does the majority leader intend to return to this measure upon the completion of that?

Mr. TSONGAS. Mr. President, reserving the right to object——

Mr. ROBERT C. BYRD. Does the Senator from Massachusetts object?

Mr. TSONGAS. No, I just wondered, if this motion to lay on the table should fail, then I presume we would have to vote on accepting the original amendment; is that correct?

Mr. JOHNSTON. That is correct. I would not expect to have a record vote. Should the Tsongas-Hart amendment fail, as far as I am concerned, a voice vote would be fine.

Mr. President, reserving the right to object, I wonder if we could not have that matter as the last item of business—I imagine it would require about an hour—so that we could continue on with this bill until an hour before you are ready to “shut her down” for the evening. Can we do that?

Mr. ROBERT C. BYRD. Well, it is my understanding that an hour or two will be required on the budget resolution conference report.

Mr. JOHNSTON. What I am asking is, whatever time the Senator wishes to adjourn or recess for the evening, if we could back up about an hour or two from that time, as needed.

Mr. DOMENICI. That is about now, is it not?

Mr. ROBERT C. BYRD. That is why I was making the request at this time.

Mr. JOHNSTON. Oh.

Mr. DOMENICI. Reserving the right to object, then, would it be part of the agreement that as soon as we were finished with our budget resolution, we would return to this measure?

Mr. ROBERT C. BYRD. Yes, that would be automatic.

Mr. JOHNSTON. That would be tomorrow?

Mr. ROBERT C. BYRD. It would be today. We would return to it, whether today or tomorrow will be another matter, but the Senate would automatically return to the consideration of the pending business.

Mr. JOHNSTON. Mr. President, I will not object, of course, to the majority leader's request, but I wonder if it would be possible to get a unanimous-consent agreement whereby we are able to complete this bill by title, so that we will not have to return to synthetic fuels after consideration of the conference report, because we have so many titles here, I would hate to jump from this to gasohol, to targets and goals, and back to conservation. It is hard enough for those of limited mental ability to keep up with one title at a time, rather than having to jump all over this matter.

Mr. TSONGAS. Mr. President, I would say to the Senator from Louisiana that I believe he has thoroughly demonstrated his mental agility.

Mr. ROBERT C. BYRD. Mr. President, I understand we cannot get the request acceded to at this point, and I would suggest we not pursue it further at the moment.

Mr. DOMENICI. Mr. President, let me just state the concerns of a few of our people on this side of the aisle, and maybe we can be thinking of a way to resolve it.

We do not want to agree, because it seems like we could add significantly to the titles, the sum total of which would make the authorization far larger than the accumulation now. They are looking at the total authorization and saying they will approve the first one, but what about the second one, making it much bigger? And when you add it up, you have an authorization much bigger than the budget provides.

Mr. JOHNSTON. If it is a matter of only dollars, we could perhaps leave it open except for the amount of dollars.

Mr. DOMENICI. I am thinking we ought to submit that to them, and see if next time we try, maybe we could get them to agree, leaving it open only as to levels of funding.

Mr. ROBERT C. BYRD. With that situation, would that not be subject to a point of order under the Budget Act?

Mr. MUSKIE. No; it would not. That is what we had the conversation about. The Appropriations Committee would still control it, and we would have no problems. I assume the Appropriations Committee would respond to the authorizations committees consistent with the budget resolution.

Mr. ROBERT C. BYRD. I would suggest that we try to work out some resolution of this problem, and maybe it can be done.

I press my request that Senator Muskje be recognized after the disposition of the pending amendment by Mr. Tsongas.

Mr. JOHNSTON. The Tsongas-Hart amendment is a perfecting amendment to the Domenici-Johnston amendment, which is the pending amendment. We are asking for a rollcall vote on the motion to lay on the table, when I make it, and if that motion to lay on the table should be agreed to, then we will vote, as far as I am concerned, by voice vote on the Domenici-Johnston amendment.

Mr. TSONGAS. Mr. President, will the Senator yield for an inquiry?

Mr. JOHNSTON. I yield.

Mr. TSONGAS. If the motion to lay on the table should fail, then the question would be on the perfecting amendment, and there would then be a vote on the Domenici-Johnston amendment as perfected, and should that succeed, which hopefully it would, we would have to strike the language which is now in the bill, so there would be three votes, which I assume we could do by voice, and the only recorded vote would be on the motion to lay on the table?

Mr. JOHNSTON. No; we would have a rollcall vote on my motion to lay on the table, which would be the first order of business.

Mr. TSONGAS. That is right.

Mr. JOHNSTON. Should that fail, then I suspect we would have rollcall votes thereafter on the Domenici-Johnston amendment as then perfected.

Mr. ROBERT C. BYRD. Mr. President, the conference report on the budget resolution is a privileged matter, and subject to being called up by nondebatable motion to proceed to take it up. So I, therefore, withdraw my request. It will be the intention of the leadership at some point, following this vote, to move to proceed to take up the conference report.

Mr. JOHNSTON. Mr. President, I move to lay on the table the Tsongas-Hart amendment, and ask for the yeas and nays.

The PRESIDING OFFICER. Is there a sufficient second? There is a sufficient second.

The yeas and nays were ordered.

The PRESIDING OFFICER. The question is on agreeing to the motion to lay on the table. The yeas and nays have been ordered, and the clerk will call the roll.

The legislative clerk called the roll.

Mr. ROBERT C. BYRD. Mr. President, on this vote, I have a pair with the distinguished Senator from New Hampshire (Mr. Durkin). If he were present and voting, he would vote "yea"; I have already voted "nay." Therefore, I withdraw my vote.

Mr. CRANSTON. I announce that the Senator from New Hampshire (Mr. Durkin), the Senator from Alaska (Mr. Gravel), the Senator from Massachusetts (Mr. Kennedy), the Senator from Connecticut (Mr. Ribicoff), and the Senator from Georgia (Mr. Talmadge) are necessarily absent.

He further announce that, if present and voting, the Senator from Connecticut (Mr. Ribicoff) would say "nay."

Mr. STEVENS. I announce that the Senator from Tennessee (Mr. Carter) and the Senator from Maryland (Mr. Mathias) are necessarily absent.

The PRESIDING OFFICER. Are there any other Senators remaining who wish to vote?

The result was announced—yeas 55, nays 37, as follows:

[Rollcall Vote No. 391 Leg.]

YEAS—55

Mr. Hatfield	Mr. Nelson
Mr. Hayakawa	Mr. Nunn
Mr. Heflin	Mr. Pell
Mr. Hollings	Mr. Randolph
Mr. Huddleston	Mr. Riegle
Mr. Inouye	Mr. Roth
Mr. Jackson	Mr. Sasser
Mr. Javits	Mr. Schweiker
Mr. Jepsen	Mr. Stennis
Mr. Johnston	Mr. Stevens
Mr. Levin	Mr. Stevenson
Mr. Long	Mr. Stewart
Mr. Magnuson	Mr. Stone
Mr. Matsunaga	Mr. Thurmond
Mr. McClure	Mr. Warner
Mr. Melcher	Mr. Young
Mr. Metzenbaum	Mr. Zorinsky
Mr. Morgan	
Mr. Moynihan	

NAYS—37

Mr. Hart	Mr. Pressler
Mr. Hatch	Mr. Proxmire
Mr. Helms	Mr. Pryor
Mr. Helms	Mr. Sarbanes
Mr. Humphrey	Mr. Schmitt
Mr. Kassebaum	Mr. Simpson
Mr. Laxalt	Mr. Stafford
Mr. Leahy	Mr. Tower
Mr. Lugar	Mr. Tsongas
Mr. McGovern	Mr. Wallop
Mr. Muskie	Mr. Weicker
Mr. Packwood	Mr. Williams
Mr. Percy	

SENT AND GIVING A LIVE PAIR, AS PREVIOUSLY RECORDED—1

Mr. C. Byrd, against.

NOT VOTING—7

Mr. Kennedy	Mr. Talmadge
Mr. Mathias	
Mr. Ribicoff	

So the motion to lay on the table UP amendment No. 735 was agreed to.

Mr. ROBERT C. BYRD. Mr. President, I move to reconsider the vote by which the motion to table was agreed to.

Mr. JOHNSTON. I move to lay that motion on the table.

The motion to lay on the table was agreed to.

Mr. Robert C. Byrd addressed the Chair.

The PRESIDING OFFICER. The Senator from West Virginia.

ORDER OF PROCEDURE

Mr. ROBERT C. BYRD. Mr. President, the Senate will shortly proceed to the consideration of the conference report on the second concurrent resolution on the budget. But, before it does so, I ask unanimous consent that a vote occur on the adoption of the report no later than 6:30 p.m. today.

Mr. JOHNSTON. Reserving the right to object, I shall not object, I hope that the majority leader would let us get a couple of uncontested amendments adopted here before we move on to the budget.

Mr. ROBERT C. BYRD. Mr. President, may we have order in the Senate?

The PRESIDING OFFICER (Mr. Tsongas). The Senate is now in order.

Mr. ROBERT C. BYRD. Mr. President, if the Senators will allow me to make this request, I ask unanimous consent that the vote on the committee amendment that is in disagreement, the Budget Committee amendment is in disagreement—

Mr. MUSKIE. An amendment in the nature of a substitute.

The PRESIDING OFFICER. The Chair informs the Senator it would be a motion to concur with an amendment.

Mr. ROBERT C. BYRD. Yes.

Mr. President, if I may have the attention of the Senate, may I say first that it is the intention to move to a privileged matter, that being the conference report on the second concurrent budget resolution.

I ask unanimous consent that the vote which will occur, and which will undoubtedly be a rollcall vote on the motion to concur in the House amendment with an amendment, occur no later than 6:30 p.m. today.

The PRESIDING OFFICER. Is there objection?

Mr. PERCY. Mr. President, reserving the right to object, and I do not intend to object, but I would like to make an inquiry.

I have been talking with the managers as to when we can get to an amendment sponsored by myself, and several others, to S. 932, amendment No. 569, calling for the elimination of GOCO's.

The Senator from Illinois is willing to wait for that, but he would like to know when that would be the pending business.

We have been waiting all day, trying to get this amendment up. We would like to have this the first order of business when we deal with GOCO's.

There may be an infinite variety of ways to handle this. But is there some understanding we can get as to when our amendment will be considered?

Mr. ROBERT C. BYRD. Mr. President, I yield to the distinguished Senator from Louisiana.

Mr. PERCY. Would this be the pending business tomorrow, the next amendment up on this bill?

Mr. JOHNSTON. Mr. President, if I may respond to the distinguished Senator.

Mr. DOMENICI. May we have order, Mr. President?

Mr. JOHNSTON. If I may respond to the distinguished Senator from Illinois, it is our purpose, our hope, that we could first adopt the pending amendment, which would be a voice vote, Domenici-Johnston.

Then I have informed the distinguished Senator from Texas that we would accept a noncontroversial amendment—I believe it is noncontroversial—of his.

While we do not control the order of amendments, I would be delighted to take up the amendment of the distinguished Senator from Illinois thereafter and make it the pending business tomorrow morning.

Mr. PERCY. It may be noncontroversial, but that amendment may impinge considerably. It deals with the same subject as the amendment of the Senator from Illinois.

Mr. JOHNSTON. If I may tell the Senator, all the amendment of the distinguished Senator from Texas does is tighten up and restrict the circumstances under which a GOCO could occur.

So it is headed in the same direction as the amendment of the Senator from Illinois, although it does not go as far. I would assume the Senator from Illinois would have no objection to that kind of amendment. I think it is appropriate to adopt it first so the Senate as a whole may know what the options are, because we intend to accept that, in any event.

Mr. DOMENICI. Mr. President, reserving the right to object, let me say that while I have indicated I support the amendment of my good friend from Texas, because it does clarify and make more difficult the time that GOCO's could arrive on the scene, if ever, I certainly did not, in agreeing to support that, intend to in any way infringe on the good Senator from Illinois' purposes or his amendment.

If he thinks that one harms his chances, I mean, I certainly did not concur with the idea of harming his rights and his amendment.

So, if he does not want to agree——

Mr. PERCY. Speaking on behalf of my cosponsors, I know we would all like to have the issue settled up or down. Do we, or do we not, have GOCO's? If we do have, we will certainly support the Bentsen amendment. I would not want to support the Bentsen amendment now, or just let it go and be accepted without discussion, unless a full discussion as to whether or not we want to establish the principle of GOCO's had first taken place.

That is the essential thing.

I would hope the distinguished Senator from Texas would feel that is an issue that ought to be debated considerably.

Mr. BENTSEN. Mr. President, the issue ought to be debated. I think it should.

As the manager of the bill has stated, what my amendment does, it moves in that direction. I have some concern over GOCO's. If we want to talk about strategy, I will make it obvious that mine will be offered one way or the other, and that will be in the consideration of Members voting.

I would like, frankly, to improve the situation because of my concern about GOCO's, that, in effect, what it says is that they cannot proceed in the construction of such a plant without advising industry through the Federal Register, citing the objectives, what they are trying to accomplish, and let private industry respond to it, decide whether or not they want to file an intent to go ahead and fulfill the objectives without the building of a GOCO.

That is, in essence, what this amendment proposes.

We can vote that one, or, as I understand it, the manager for the majority and the manager for the minority have stated they are willing to accept that. I would propose it and then we could have a vote on the Senator's, whatever the leadership wants to do.

I do not want to deny the Senator's vote at all.

Mr. PERCY. If the Senator will yield, one of the basic reasons why we have to bring this amendment up all day is simply because we think it ought to be a clear-cut case of do we have, or do we not have the full knowledge of the impact of GOCO's in the Senate.

The Senator from Illinois and all his cosponsors would support the Bentsen amendment if we have GOCO's. The question is first, I should think, to be resolved, do we, or do we not, have GOCO's. Let us have a chance to have that vote up or down and get it over with. Then if they are out, we do not need a Bentsen amendment. If they are in, we would obviously, all support the Bentsen amendment.

The PRESIDING OFFICER. Is there objection?

Without objection, it is so ordered.

Mr. ROBERT C. BYRD. Will the Senator yield?

Mr. PERCY. I am happy to yield.

Mr. ROBERT C. BYRD. The question has been agreed to?

The PRESIDING OFFICER. Yes.

UP AMENDMENT NO. 733

Mr. MUSKIE. Mr. President, I am pleased to be able to support the amendments offered by Senators Johnston and Domenici to the Energy Committee bill.

These modifications accommodate the major concerns I have expressed about the bill as reported from committee.

Specifically, I support the adoption of a distinct two phase approach. This will be accomplished by the committee's requirement that the comprehensive plan be submitted in 5 years, not 3, and that even then, the plan would be submitted only if the required economic, environmental and technical information has been obtained.

Also, I support the requirement that both Houses of Congress approve the comprehensive plan prior to its adoption. As was witnessed today on the floor of the Senate, substantive debate is fundamental to the development of sound energy policy.

Finally, I am supportive of the Energy Committee's clarification of the authorization level for synthetic fuels. I quite agree with the comments made by the distinguished Senator from New Mexico, with whom I have the privilege to work on the Budget Committee, that an obligational ceiling of \$20 billion be established for phase 1. I also agree that the Congress has the right to approve not only the com-

prehensive plan, but the appropriate level of funding for phase 2, if there is to be one supported by Federal dollars.

Mr. President, while I was supportive of the Banking Committee's substitute, I am pleased to say that with the incorporation of these perfecting amendments, I will support the Senate Energy Committee. Their bill now contains the flexibility we must preserve in dealing with unproven technologies with unknown environmental impacts and high price tags.

To reiterate the comments I made earlier today, we can debate the issue of synthetic fuels no longer. Now is the time to act, the time to commit the resources required to lessen our dependency on imported oil.

Mr. President, I intend to support the amendment of Senators Johnston and Domenici.

The PRESIDING OFFICER. If there is no further debate, the question is on agreeing to the amendment of the Senators from New Mexico and Louisiana.

Mr. JOHNSTON. I move that matter at this time.

The PRESIDING OFFICER. The question is on agreeing to the amendment.

The amendment (UP No. 733), was agreed to.

Mr. DOMENICI. Mr. President, I move to reconsider the vote by which the amendment was agreed to.

Mr. JOHNSTON. I move to lay that motion on the table.

The motion to lay on the table was agreed to.¹

UP AMENDMENT NO. 736

(Purpose: To require the Energy Security Corporation to solicit proposals to carry out the intent of Corporation construction projects using financial assistance under section 181 (a) prior to undertaking such projects directly itself)

Mr. BENTSEN. Mr. President, I send an amendment to the desk.

The PRESIDING OFFICER. The amendment will be stated.

The assistant legislative clerk read as follows:

The Senator from Texas (Mr. Bentsen) proposes an unprinted amendment numbered 736.

Mr. BENTSEN. Mr. President, I ask unanimous consent that reading of the amendment be dispensed with.

The PRESIDING OFFICER. Without objection, it is so ordered.

The amendment is as follows:

On page 79, insert the following:

Section 122(a)(1)(D) is amended by inserting "and paragraph (4)" after "and (C)."

Section 122(a) is amended by adding at the end thereof the following new paragraph:

(4) Prior to undertaking Corporation construction projects pursuant to subtitle E, the Corporation shall publish in the Federal Register its intent to establish such a Corporation and the objectives of such project, and shall solicit proposals to meet such objectives through the use of financial assistance mechanisms established under subtitle D. If the Corporation does not receive an acceptable notice of intent to submit a proposal within thirty days after the publication of the objectives pursuant to the preceding sentence, the Corporation may undertake such projects pursuant to subtitle E.

¹ Portion of Record not pertinent omitted.

Mr. BENTSEN. Mr. President, the amendment I have sent to the desk is an unprinted amendment to title I, designed to clarify the role of GOCO's, Government-owned, contractor-operated synfuel plants.

Very few of us, Mr. President, are entirely comfortable with the concept embodied by GOCO's. The Energy Committee, to their credit, and especially Senators Metzenbaum and Johnston devoted more personal deliberation and resources in addressing the GOCO provision than perhaps any other single provision in S. 932. And I believe they have positioned GOCO's in the most reasonable manner possible.

I am not going to defend or criticize the concept of GOCO's. I would be very surprised, however, if one is ever built. But the possibility that one or more could be built will insure, I believe, that our private sector expeditiously investigates all reasonable synfuel technologies.

My amendment is designed to more narrowly define circumstances when a GOCO could conceivably be initiated by the Energy Security Corporation. As drafted and amended, S. 932 now permits the Corporation to initiate a GOCO after sifting through a variety of proposals designed to cover the entire synfuel spectrum and engaging in direct negotiations with just one firm. This gives the Corporation too much latitude. It could, for example, decide to explore a synfuel technology using a GOCO simply because no proposal for that technology was received and one firm would not agree to develop a specific technology.

Instead, I propose that the Corporation make known its intention to establish a GOCO before proceeding to do so; and give private industry the opportunity to explore the specific technology in question first.

My amendment then requires that the Corporation take two steps before initiating a GOCO:

First, once it has identified possible GOCO opportunity, the Corporation must specify in the Federal Register the objectives of that GOCO. Then they have to wait 30 days for private industry or any other entity to notify the Corporation that they are willing to attain those objectives using financial incentives available under subtitle D. If an acceptable notification is received, the Corporation cannot proceed with the GOCO. It is my intention that such notification be promptly followed, certainly within 60 days, by a thorough and complete proposal for attaining those objectives.

That simply is what it does. It gives private industry 30 days advanced knowledge through publication in the Federal Register, letting them know which particular technology, which GOCO plant may be built, and lets them respond and see if they can attain the GOCO's objectives without the GOCO plant being built.

So private industry is given the opportunity to suggest ways it can attain these objectives—not with a GOCO—but with the other forms of assistance such as price or purchase agreements that the Corporation can make available under subtitle D.

This amendment should receive support from all of those who support GOCO's and those who believe, as I do, that the development of our synfuels resources should be left entirely in private hands. It will reinforce the intent of the GOCO provision which is to stimulate

private sector exploration of all the likely synfuel options, to insure that the private sector knows it has to do a thorough job.

On the other hand, my amendment will provide some insurance to the private sector that the Energy Security Corporation will not rush pell-mell into establishing a GOCO, that they will have a clear opportunity to satisfy the objectives without the GOCO plant being built.

I know my friend from Illinois prefers that my amendment not be offered at this time. I understand it is because he wants the GOCO plant to be put in just as unfavorable light as one can possibly have it.

I really believe that is the wrong way to approach legislation. I think we should try to approach legislation by improving it to the best extent that we possibly can so we have the very best of options from which to finally make a decision. So that is the spirit in which this amendment is offered.

In summary, my amendment gives our private sector the right of first refusal to attain the objectives of any prospective GOCO before it is established. And I believe it will reduce the likelihood that we will ever see one.

I urge adoption of my amendment.

I have discussed it with the manager of the bill and with the minority manager of the bill, and I am hopeful they will find that they can accept it.

I certainly agree that my friend from Illinois should have a full right to see that his particular amendment is considered and whether the vote goes up or down. But let us make the option, one, where at least we have an improved GOCO in the process.

Mr. JOHNSTON. Mr. President, this is a good amendment and we will accept it.

Let me very briefly explain what is involved in so-called GOCO's, Government owned, company operated, and tell Senators why we want the option of GOCO's, why we are willing to accept the Bentsen amendment and why it is so important to this bill.

Let me say, at the outset, GOCO's are indeed opposed by the biggest corporations in the country, Exxon and others, and it is not that it is supported by mom and pop outfits because, frankly, synfuels is not a mom and pop business, but the problem is when we give to the corporation or indeed if we gave to the Department of Energy the mandate of going out and putting on line one of a kind commercial demonstrations in the 50,000 barrels a day range, there are very few people one can deal with.

In the case of Exxon donor solvent, which happens to be one of the more promising technologies in liquid coal, you have only one company to deal with. We do not want to put this corporation in such an inferior position with respect to Exxon when we are dealing that they have to take it or leave it according to whatever Exxon offers.

In other words, if Exxon comes in any says, "The only way we will go with this process is to have a loan guarantee of 90 percent and a price guarantee of \$60 a barrel, and a completion guarantee and package," that is too much.

We want to have an alternative to that where we can say, "All right, Mr. Exxon, if you do not do it we will."

It is our fervent hope we never have to build the first GOCO under this legislation.

Indeed, the Bentsen amendment provides for the advertisement, and the delay, and the language we have in the bill provides, first of all, for no more than three GOCO's except following the one-House veto procedure. Second, it provides that you can go to GOCO's only after you exhaust the hierarchy of financial incentives that are given to the corporations which are, in order of priority, price guarantees, loan guarantees, loans, other financial arrangements, such as completion guarantees, joint ventures, and finally and last, GOCO's.

So under the bill you do not reach the corporation; the corporation does not reach the ability to enter a GOCO except as a last resort, after everything else has proved not to work.

What it does is it guarantees a square deal for the American people in that it gives this Corporation some power, some equity in the bargaining process. All we want to do is to have a credible threat of a GOCO so that we will keep the major corporations honest.

Again keep in mind, Mr. President, that with ventures of \$1 billion, \$2 billion, and \$3 billion in scope, there are very few players and very few synfuel processes involved. There are perhaps seven or eight low Btu gas, perhaps four high Btu gas, and four or five major liquefaction of coal processes. And from among those you will have to choose maybe 10 or 12 of the top candidates.

So, we do not want a GOCO to occur. We want the possibility, and the Bentsen amendment, which we are glad to accept, further restricts those circumstances under which it can be adopted but makes it clear that there is still a credible possibility, although a last resort possibility, of having a GOCO.

Mr. BENTSEN. Mr. President, will the Senator yield?

Mr. JOHNSTON. I yield.

Mr. BENTSEN. I well understand his argument and the reason for the GOCO. There are not many companies that you can deal with that can handle a billion-dollar plant. It is a very limited group. You do not want to get a situation, either where you get a sweetheart bill, where the Corporation can scan through the technology that is available, and they come up with a new idea and decide no one has offered that so they will go out and make a sweetheart deal. You would have a fast shuffle where they make a deal with one company and negotiate for them to build a GOCO.

My amendment puts the whole world on notice that the Corporation is thinking about a GOCO. They would have to cite the objectives, let the whole private sector know about it and really generate some competition where anyone can come in and say: "Look, we really do not need that GOCO. We have a way to handle it, and we can handle that kind of technology without a GOCO."

I appreciate very much the comments of the Senator from Louisiana.

Mr. DOMENICI. Mr. President, while I am willing on behalf of the minority to accept Senator Bentsen's amendment, and it is a salutary amendment in that it establishes a rather firm procedure or condition precedent to GOCO's under the existing bill, I do not accept it with the idea that I am in favor of the GOCO provision in the bill. I certainly think that the good Senator from Illinois, and others who are

supporting him, will bring a very significant issue to the floor when they talk about whether or not we should strike the provision, strip the bill of the authority to go GOCO.

I remind my friends in the Senate that in the committee the vote was 10 to 8 on my proposal, which would basically say that no GOCO's unless the Board found you could not get where we wanted to go without one, and then they would have to ask the President to concur and send that to the Congress for possible veto, which left it there in abeyance but, in a sense, made it very, very difficult, and authorized none per se.

This bill provides for three under extreme circumstances, and the Senator will make it even more extreme. I laud the Senator for it, and I am willing to accept the amendment.

The PRESIDING OFFICER. The question is on agreeing to the amendment of the Senator from Texas.

The amendment was agreed to.

Mr. JOHNSTON. Mr. President, I move to reconsider the vote by which the amendment was agreed to.

Mr. BENTSEN. I move to lay that motion on the table.

Mr. DOMENICI. I move to lay that motion on the table.

The motion to lay on the table was agreed to.

Mr. JOHNSTON. Mr. President, I wonder if the distinguished Senator from Maine will withhold to allow us to proceed to one other amendment.

Mr. MUSKIE. Has the Senator looked at the clock? We have a vote on my matter at 6:30, and I am supposed to present this conference report, which is not exactly unheard of.

Mr. DOMENICI. Senator Bellmon thought that the Senator from Maine would agree to it.

Mr. MUSKIE. You have had one that was uncontroversial and brief, and that has consumed 20 minutes. However, I yield to the Senator from Oklahoma.

UP AMENDMENT NO. 737

Mr. BELLMON. Mr. President, I have an amendment at the desk and I ask for its immediate consideration.

The PRESIDING OFFICER. The clerk will report.

The assistant legislative clerk read as follows:

The Senator from Oklahoma (Mr. Bellmon) proposes an unprinted amendment numbered 737.

Mr. BELLMON. Mr. President, I ask unanimous consent that further reading of the amendment be dispensed with.

The PRESIDING OFFICER. Without objection, it is so ordered.

The amendment is as follows:

On page 73, immediately following the period on line 11, insert the following: "*Provided, however,* That the Corporation shall not be authorized to employ more than three hundred persons in full-time professional positions at any point in time; and *provided, further,* That for purposes of the preceding limitation, persons employed for projects under subtitle E shall not be counted."

Mr. BELLMON. Mr. President, this is a very simple amendment that sets a 300-person limit in full-time professional positions for the Energy Security Corporation. That is all there is to it. I feel we are

going to create a new bureaucracy, and we ought to put a limit on the number of people employed there. This limit is agreeable to the administration, and I hope it is agreeable to the managers of the bill.

Mr. JOHNSTON. Mr. President, the 300 limit came from the Department of Energy. That is what they said it would take to do the job. I am glad the Senator from Oklahoma is putting this limit on. We ought to start doing that on every new department we create around here. I congratulate him for proposing this amendment.

Mr. DOMENICI. We congratulate the Senator from Oklahoma and we are glad his amendment puts a limit on, and we hope the Senate will accept the excellent amendment offered by the Senator from Oklahoma.

The PRESIDING OFFICER. The question is on agreeing to the amendment of the Senator from Oklahoma.

The amendment was agreed to.

Mr. BELLMON. Mr. President, I move to reconsider the vote by which the amendment was agreed to.

Mr. DOMENICI. I move to lay that motion on the table.

The motion to lay on the table was agreed to.

Mr. RANDOLPH. I note with considerable interest and gratification that the bill recognizes the importance of excluding recyclable wastepaper from the operation of the financial assistance provisions of subtitle D as applied to the commercial production of synthetic fuel derived from biomass. Section 131(m) properly protects from destruction basic raw material such as recoverable and recyclable wastepaper that are vital to the national economy and which have historically been recycled for nonenergy uses. I commend the distinguished chairman and members of the Energy Committee for assuring the continued availability of source separated wastepaper such as used newspapers for recovery and remanufacture into paper and paper products. This legislation therefore continues the materials conservation objectives of previous enactments such as the Resource Conservation and Recovery Act, encouraging the growth of markets for such materials. I believe section 131(m) would appropriately deny financial assistance to a synthetic fuel project which would utilize such materials as a feedstock whether or not such material has been extensively recycled in a given geographic area. I ask the distinguished floor manager of the bill if he agrees with my interpretation.

Mr. JOHNSTON. I appreciate the comments by my distinguished colleague, the Senator from West Virginia (Mr. Randolph). We agree with him on the importance of wastepaper recycling and the need to protect from destruction this vital raw material for such nonenergy uses as recycled newsprint and other paper products. There are substantial energy conservation benefits derived from the recycling process. Section 131(m) is based on the recognition that there is a net energy conservation advantage to recycling newsprint, over burning it for its energy value. Senator Randolph's interpretation is correct. This provision deals with historically recycled wastepaper such as newsprint whether or not it has been greatly utilized in a given geographic area. I am pleased that he called this matter to the attention of our colleagues.

Mr. JAVITS. Mr. President, I am pleased to be the cosponsor of amendment No. 564 to S. 932 proposed by Senator Ribicoff to author-

ize the National Academy of Sciences to study the impact of the synthetic fuels program on the accumulation of carbon dioxide in the atmosphere. I believe that we must thoroughly evaluate the potential impact of combustion of all fossil fuels on the environment at the same time we consider a commitment to a massive drive to produce synthetic fuels for coal and oil shale.

Last July, the distinguished chairman of the Governmental Affairs Committee organized a symposium on the carbon dioxide issue at which the members heard from a wide range of representatives of the scientific community. According to the testimony, the fact is that the burning of synthetic fossil fuels may substantially increase the amount of carbon dioxide in the air. And this buildup of carbon dioxide is likely to produce the "greenhouse effect" which warms the Earth's surface. This warming trend could have a major impact in the 21st century on the world's climates, ocean currents, growing seasons, and sea level.

Carbon dioxide is presently being released at a rate faster than can be absorbed by the oceans and biota. Scientists estimate that a doubling of the present concentration could occur in 50 years and possibly in as little as 25 years. The danger is that such a doubling could produce an average global warming of 2° to 3° C. and 3° to 4° C. at the poles. Although no consensus emerged from the scientists at our hearings, the greater warming at the poles could possibly start melting the West Antarctic ice sheet which would raise the sea level by as much as 20 feet. This dramatic rise in sea level would eventually flood most of the coastal areas of the United States, including New York City, Boston, and Washington, as well as the gulf coast and the mid-Atlantic coast. The greater warming throughout the world would also shift our climatic zones, thereby affecting our food supply, our water supply, and our energy demands.

Mr. President, clearly these possibilities suggest the adoption of this amendment to enable us better to understand the consequences of the increased carbon dioxide produced by synfuels plants and more importantly by all fossil fuel plants. Many basic questions remain unsolved as to the nature of the carbon dioxide problem and the appropriate response to its impact. These questions include the nature of climate changes, future demands for fossil fuel worldwide, the relations, and the impact of specific energy policies on the environment and climate.

The United States should join in examining this issue and seeking these answers, but the problem is, of course, a global one. New fossil fuel plants are likely to go up in the less developed world, where the need for liquid hydrocarbon fuel for transportation is also skyrocketing. Not only will the effects of carbon dioxide pollution be felt worldwide but also the sources of such emissions are an international issue no longer limited to the industrial world. Thus, one of the important aspects of this study is that the National Academy of Sciences is to conduct its preliminary assessment in concert with governmental and nongovernmental scientific bodies around the world and is to include in its long-range plans mechanisms for cooperation with the World Meteorological Association, the U.N. environment program, and scientific programs in less developed nations in assessment of the world's

carbon dioxide problem. I am therefore especially pleased to join in the amendment and I shall follow the progress of this important research with keen interest.

Mr. RIEGLE. Mr. President, I wish to express my reasons for supporting the synthetic fuels provisions of S. 932, the Energy Security Act, reported out of the Energy Committee as opposed to the counterpart provisions in the Banking Committee bill.

I believe that a genuine energy crisis exists in this country and that it is time that we allocate the necessary funds and assemble the resources to meet that crisis. Given the recent oil shocks in Iran and the uncertainties in the other oil producing countries of the world, it is time that we undertake a major effort to develop synthetic fuels and move our country toward energy self-sufficiency.

Let me analyze briefly some of the provisions in the two bills:

The Energy Committee bill establishes a definitive production goal of 1.5 million barrels per day by 1995. The Banking Committee bill sets no production goal, but rather limits production to no more than 50,000 barrels per day per commercial demonstration project and limits the number of demonstration projects. I believe in setting a production level and a level that is higher rather than lower under today's circumstances.

The Senate Energy Committee recommends a two-phase, \$88 billion program. The first phase would authorize \$20 billion to be obligated by a Synthetic Fuels Corporation to develop at least one synfuel project for each major feedstock including coal, shale, tar sands, heavy oil and biomass. The second phase would be initiated upon completion of a comprehensive plan by the Corporation within 3 years after the effective date of enactment. The Banking Committee bill provides for only \$3 billion. People complain about the Energy Committee's \$88 billion price tag over the next 10 years but fail to realize that putting this amount into perspective, \$88 billion accounts for only one-fourth of 1 percent of the gross national product for the period from now to 1995. One-fourth of 1 percent to me is a slight amount considering the magnitude of the energy problem that we face and our strategic vulnerability due to dependence on unstable foreign sources of oil.

Finally, the Synthetic Fuels Corporation envisioned by the Energy Committee's Energy Security Act would be an independent, federally owned corporation. The five-member board of directors would be appointed for 5-year staggered terms, subject to Senate confirmation. This would provide the Senate with considerable oversight authority and such an independent corporation I believe would be much better able to attract and hire the best scientific, technical, and managerial talent in the country without regard to bureaucratic restrictions. The Banking Committee approach on the other hand would encourage synfuel production acting through existing Government agencies. I believe that existing Government agencies have failed us miserably in the past in the energy production area and that an independent approach with board members coming from the private sector is essential to a serious effort at achieving a national energy breakthrough.

These are the main reasons that I support the synthetic fuels provisions of the Energy Committee bill.

I believe this bill moves us forward more expeditiously toward energy self-sufficiency and more fully recognizes and responds to the

energy crisis that we face than the legislation proposed by the Banking Committee.

November 8, 1979

DEFENSE PRODUCTION ACT AMENDMENTS OF 1979

The PRESIDING OFFICER. The Senate will now resume consideration of the unfinished business, S. 932, which the clerk will state by title.

The assistant legislative clerk read as follows:

A bill (S. 932) to extend the Defense Production Act of 1950, as amended.

The Senate resumed consideration of the bill.

Mr. JOHNSTON. Mr. President, I want to announce to all Senators that our plan today is to try to finish this entire bill and all its titles before the night is out. In other words, to do that, everyone who has an amendment must put it in, be ready to discuss it, and hopefully, we shall be able to get it rejected by the Senate. There is a lot of work to do because we have a huge amount of subject matter involved in the bill.

Speaking for myself, and I know for Senator Domenici, we shall try to be reasonably succinct in our arguments. I hope that, where we accept amendments, we shall not have to discuss them for a long time but be able to accept them and do that immediately without detailed explanation.

I say that because, as I look at the clock, we started at 10, and it is now 11:15. I can see a long night coming. I urge all Senators who have amendments, beginning with the synfuels section—we are going to try to take this bill title by title. I urge them to bring those amendments forth and let us get cracking.

Mr. GARN. Mr. President—

The PRESIDING OFFICER. The Senator from Utah is recognized.

Mr. Domenici addressed the Chair.

Mr. GARN. I am happy to yield to my most distinguished colleague from New Mexico.

Mr. DOMENICI. I am most appreciative.

Mr. President, on our side, we know of some of the amendments. We have looked at them, and I am sure there are others. I hope the Senators will get us their amendments as soon as possible so we can expedite matters. I do want everybody to know that there is no agreement on title-by-title consideration, so amendments are authorized any time on any of the measures.

Mr. PROXMIRE. Mr. President, I ask unanimous consent that Frank Shaffroth of the Committee on Banking, Housing and Urban Affairs, have the privilege of the floor during the consideration of S. 932, to amend the Defense Production Act of 1950.

UP AMENDMENT NO. 789

(Purpose: To provide for live television and radio coverage of the Senate consideration of the Strategic Arms Limitation Treaty)

Mr. GARN. Mr. President, I send an amendment to the desk and ask for its immediate consideration.

The PRESIDING OFFICER. The clerk will state the amendment.

The assistant legislative clerk read as follows:

The Senator from Utah (Mr. GARN) proposes an unprinted amendment numbered 739.

Mr. GARN. I ask unanimous consent that further reading be dispensed with.

The PRESIDING OFFICER. Without objection, it is so ordered.

The amendment is as follows:

At the appropriate place insert:

SEC. . (a) The Committee on Rules and Administration of the Senate shall provide for television and radio coverage (including videotapes and radio broadcast recordings) of proceedings in the Senate Chamber during consideration of the Strategic Arms Limitation Treaty. Such coverage shall be provided for continuously at all times while the Senate is considering the treaty, except for any time when a meeting with closed doors is ordered.

(b) Under such terms and conditions as the Committee on Rules and Administration of the Senate may prescribe—

(1) television and radio coverage of proceedings in the Senate Chamber provided for in the first section shall be made available to public and commercial television and radio broadcasting and networks; and

(2) videotapes and recordings shall be made available to such stations and networks, to Members of the Senate, and to such other organizations and persons as the committee may authorize.

(c) The television and radio coverage of proceedings in the Senate Chamber under this section shall be carried out in such manner as the Committee on Rules and Administration of the Senate shall prescribe.

(d) This section is enacted as an exercise of the rulemaking power of the Senate.

Mr. GARN. Mr. President, I should like the attention of the majority leader at this time.

This is an amendment that I am bringing up rather precipitately. I am glad the majority leader is on the floor. I would have requested his presence had he not been here.

Mr. ROBERT C. BYRD. The majority leader is usually on the floor. I am sorry to say I have to spend hours and hours here.

Mr. GARN. I understand that he is.

Mr. ROBERT C. BYRD. I certainly get tired of it.

Mr. GARN. Mr. President, this is an amendment that would authorize radio and TV coverage of the SALT debates. The reason I do this, Mr. President, in a precipitate fashion is that we are running out of time.

Mr. President, the Senate will almost certainly soon have before it the SALT II treaty, presently nearing the completion of its consideration by the Foreign Relations Committee. The debate on the treaty, and its instrument of ratification, will be before this body, at least. This amendment will see to it that the treaty debate is brought before the American people, as well.

As my colleagues examine the language of this amendment, they will find that it is not new. It is essentially identical to the resolution I introduced on May 10 of this year, just over 5 months ago. The Rules Committee, to which that resolution, Senate Resolution 158 was referred, has been a very busy committee. They have been unable to schedule hearings on this resolution, and so nothing has been done to bring this proposal to the floor.

As I said, Mr. President, we are running out of time. There is much to be done before television cameras and microphones can begin

broadcasting the SALT debate. My sole purpose in calling up this amendment today is to relieve the Rules Committee of the extra burden of evaluating the merits or demerits of broadcasting the SALT debate. That is, after all, an issue that the entire Senate must decide directly. I propose that we make that decision today, so that, if it is the will of the Senate, the Rules Committee can proceed directly to the question of the terms and conditions of the debate broadcast, which this amendment directs and empowers them to do.

That, Mr. President, is the essence of my amendment today: To start the ball rolling. To let the American people know, today, that they can expect this body to share with them its historic and vitally important consideration of the SALT treaty and all of its various implications for this Nation's security.

This amendment does not attempt to answer questions about the specific details of the procedures necessary to broadcast the SALT debate. No such amendment should do that. We have a very competent and thoroughly professional staff serving the Rules Committee, and very capable and diligent Members serving on that committee, under their distinguished chairman, Senator Pell. Several of them have examined aspects of this issue before, at least partially, when the Senate chose to allow the radio broadcast of the Panama Canal treaty debate. They have been studying various aspects of the concept of televised broadcasts from the Senate Chamber for several years. They are certainly capable of evaluating the present state-of-the-art in cameras and lighting technology and establishing guidelines for implementing the will of the Senate in broadcasting this debate. I would hope that during our consideration of this amendment today we will be able to perhaps establish some sense of the direction those guidelines might take.

Ultimately, however, this amendment entrusts the Rules Committee with the responsibility of insuring comprehensive broadcast coverage of the debate in a manner which preserves the integrity of the Senate and the legislative process while at the same time providing the maximum level of exposure of this important debate to the American people.

There has been some suggestions in recent weeks that the broadcasting of the SALT debate might be conditioned upon the establishment of a time agreement, limiting the length of debate on SALT II. Let me say very clearly, Mr. President, that I would have no objection to reaching such a time agreement. I am, quite literally, prepared to bring the debate to a close at the earliest possible moment, after the broad range of viewpoints on the treaty have been adequately discussed before the Senate and the public. I do not favor endless debate.

We have a decision to make about this treaty, and we must get on with the task of making it. But I am only one Senator, and such a time agreement requires the unanimous consent of all Senators. I am convinced that such unanimity cannot be achieved, or, at least, that it is not very likely that an agreement could be reached that would satisfy all concerns.

But I do not believe, Mr. President, that the question of whether or not the American public are able to witness this historic debate

should be used as the stakes in some parliamentary poker game. We are talking about the fundamental right of the American people to know what their Government is doing. We have had enough of Washington behind closed doors. There can be no time limit on the public's right to be informed.

As I have said, there can, and perhaps should, be a time limit on the amount of time the Senate should take in debating the SALT treaty on the floor. Much has already been said about it, and there is other important legislation pending before the Senate. But I feel very strongly that such a limit should not be obtained as a quid pro quo for the broadcasting of the SALT debate. I do not believe any of us can truly justify using the widespread support for broadcast of the debate as a tool for limiting it.

That support is genuine, Mr. President, and it is widespread. It grows out of an awareness on the part of the American people that they do not know enough about this treaty.

Despite many months of hearings, debate, and seemingly nonstop rhetoric, a recent Harris poll indicated that only about one-half of all Americans considered themselves adequately informed to express an opinion about the proposed SALT II treaty.

That disturbing finding provides an ideal backdrop for the following letter I received from Paul M. Davis, president of the Radio-Television News Directors Association, in support of Senate Resolution 158:

The Radio-Television News Directors Association, representing more than 2,000 persons in network and local radio and television newsrooms around the country, applauds your efforts to open the historic debate on the SALT treaty to the vast broadcast audience in the United States.

A democracy thrives on a well-informed public, and for issues as grave as those involved in our arms limitation talks with the Soviet Union, it seems to us urgent that the American voters have the opportunity to see and hear for themselves, the vital arguments debated by the Senate as it strives for a decision that will best protect the future of our nation.

You and your colleagues in the Senate have the gravest responsibility in the months ahead. We believe that a major element in this responsibility is to create an informed public opinion which can understand the extremely complex issues which must be thrashed out by the Senate.

Radio and television, through which the American public receives more of its news than through any other medium, can help immeasurably in this process.

The Senate, we feel, cannot afford to lose this opportunity for both public education and to a greater public understanding of how the Senate truly functions. To allow the Senate's traditional ban on broadcast coverage of the floor to block this opportunity would be short-sighted for the Senate—and damaging to its constituents throughout the land.

Since I introduced Senate Resolution 158 last May, I have received numerous letters from radio and television stations across the Nation, echoing Mr. Davis' concern about allowing the public to participate fully in one of the most important decisions of this century, which can only occur if radio-television coverage is authorized. Here is a brief sampling:

From WVUT and WVUB in Vincennes, Ind.:

(We) continue to go on record in full support of any legislation which expands the public right to full access to Congressional proceedings, including live coverage. The significant impact of the SALT II treaty makes such coverage even more imperative.

From WGOW in Chattanooga, Tenn. :

Putting it simply, we wholeheartedly endorse the passage of Senate Resolution 158, giving full radio and television coverage to the floor debate of SALT II. We agree that the American public needs to know the full story behind SALT II and as a journalist, the passage of Senate Resolution 158 would make the job easier.

From KCRG-TV in Cedar Rapids, Iowa :

We believe (radio and television) coverage is highly desirable and would be of great benefit to the American people. The arms limitation agreement will have an enormous effect on the future of our country and the public has the right and the obligation to as much as possible. Radio and TV coverage could go far in providing that knowledge.

From WGN radio and television in Chicago, Ill. :

The nation has been able to hear presidential addresses to Congress on radio for fifty years and has been able to see them on television for nearly thirty years. Over the past three decades, committees of both the House and Senate have opened their proceedings to broadcasting. And, earlier this year, sessions of the House itself have become available.

Now, it's the turn of the Senate. Debate on the SALT treaty is likely to begin in the fall. It is a subject of great public interest. It is also a subject which could play a major role in the 1980 elections. Yet, unless the Senate changes its rules, we won't be able to see or hear our Senators—learning their positions first-hand—as this significant treaty is debated . . . It is time to convince Senate conservatives that it is past time to allow the electorate access to the Senate chamber.

I am sure that the majority of my colleagues would agree with the general principle voiced in these letters: that SALT II is too important an issue to be discussed behind closed doors, which is exactly what the public perception will be if we do not allow radio-TV coverage. The Roper organization has found consistently that most Americans get most of their news from television—and consider it to be most believable. A vote against radio-TV coverage, then, would be tantamount to telling the majority of Americans that they have no right to monitor the SALT debate on the news media which they prefer.

There have been several previous resolutions calling for a trial of floor broadcasts, including one in 1973 which prompted our distinguished Senate majority leader to say:

The time has come for a new look at the possibility of using the electronic media to bring the Senate and the people closer together.

While radio coverage was allowed during the Panama Canal treaties debate in 1978, the other resolutions were undermined by worries about technical difficulties as well as concern about maintaining the traditional "dignity" of the Senate.

With respect to possible technical problems, I have received assurances from the four major television networks—ABC, CBS, NBC and PBS—that recent advances in camera technology have virtually eliminated traditional worries about "glaring lights" and "noisy equipment." In a letter from Edward M. Fouhy, vice president and Washington bureau chief for CBS, on behalf of the other networks, he outlines the technical procedures which would be followed in televising the SALT debate:

In response to your request for specific details, we thought it would be useful to outline the proposals we are prepared to make should the Senate decide to move forward on Senate Resolution 158. We feel our proposals are consistent with the public's right to know and the dignity of the U.S. Senate.

We believe the best approach is to form a four network pool consisting of ABC, CBS, NBC and PBS to take responsibility for the coverage. This network pool

would make available the output of the pool cameras and microphones to all bona fide broadcasters. We would propose continuous coverage of the debate, which we understand would last four to six weeks.

One company would undertake to set up the technical equipment, including lights, cameras and associated control room equipment, but the operation of the pool would be rotated regularly among the four participants.

As you know, there has not been a demonstration of television technology in the Senate chamber since 1977, and in that time there have been some important technical achievements in the matter of camera and lens systems which permit us to reduce the amount of light necessary to produce an acceptable picture. We stand ready to demonstrate the new technology at a time of the Senate's choosing and we think that such a demonstration would be persuasive to those who have found the light levels uncomfortable in the past. The new cameras could be placed unobtrusively, since they are smaller than previous models, in fixed positions. The pool would operate totally at the expense of the broadcasting industry. And the pool would provide, at no cost to the government, a complete visual record of this historic debate to the National Archives for study by scholars yet unborn. I personally favor the previously mentioned pool approach, since it will not cost the taxpayer's money and preserve the important independent nature of the news media.

As I mentioned in my opening statement, I asked the Rules Committee several weeks ago to authorize a demonstration of the technical aspects of radio-TV coverage. I am confident that such a test would allay most of the concerns my colleagues may have. The other historical arguments against radio-TV coverage of the Senate can be typified by this statement from a study by Mr. Len Allen for the Congressional Research Service:

Opponents say: We don't want TV dictating our way of business. We don't want the Senate floor turned into Ringling Brothers, Barnum and Bailey with the flamboyant atmosphere of the Big Tent. We don't want showboats in the chamber hogging the cameras and talking endlessly for their personal glory or re-election hopes. We don't want any Senator inhibited during spontaneous debate by the knowledge that words recorded on radio-TV tapes cannot be called back and later clarifications may never catch up with the original statement.

Recent experience in the House of Representatives, the Canadian House of Commons, and in State legislatures across the country has demonstrated that most of these arguments are groundless.

For example, in the House of Representatives, ego-trippers quickly incur the wrath of their peers, as well as of their home constituents, who are often embarrassed by their representatives' love affair with the television camera—and let them know it. Once the Members become used to the cameras, they no longer feel impeded from pursuing their normal activities.

Stephen Hess, a senior fellow at the Brookings Institute, noted in a recent Philadelphia Inquirer article that the Canadian House of Commons has experienced similar positive results since allowing television coverage in October, 1977.

"If anything," Hess wrote, "the decorum of Canadian parliamentarianism has improved. At first one Member of Parliament was viewed picking his teeth and another was seen ogling an attractive employee. But the lawmakers have now caught on to what is considered proper behavior by the folks back home, and act accordingly. In fact, Ottawa reporters say that the politicians even have improved their wardrobes."

The quality of debate also has improved, Hess noted. "According to Morris Wole, writing in the Canadian magazine *Saturday Night*, 'Questions and answers are becoming more direct and concise, and those members who are long-winded tend to come off worst.'"

State-by-State reports to CRS, as reported in Mr. Allen's study, indicate that legislators, broadcasters, and the public alike are strongly favorable to the televising of legislative sessions. Summing up its findings on TV in legislatures to date, the Twentieth Century Fund task forces stated:

Despite what many legislators initially fear, experience seems to indicate that television coverage of legislative sessions can be good for the institution, useful to the viewer and not annoying to the member. Certainly coverage can be provided by means that are acceptable to both the broadcaster and the institution.

Supporters of floor TV, says Mr. Allen, also claim the Senate will reap additional benefits from permitting cameras in the Chamber. "Simply making the public more aware of the Senate as an institution could help build public trust," he says. One only has to look at public opinion surveys—in which Congressmen score very low—to recognize that improving the Nation's trust should be one of our definite goals, and TV coverage could not hurt. "The more the Senate as a whole is seen performing its constitutional duties in a responsible manner, the more you eliminate the ignorance of Senate procedures, which some believe underlie low ratings of Congress," Allen stated.

I believe any objective analysis will suggest the Senate should enter the electronic age and allow full gavel-to-gavel radio-TV coverage of the SALT II debate. This historic confrontation is too important to be hidden from view of Americans by a closed-door mentality, based on traditional concerns whose validity is questionable, at best. The American people have a right to know; we have an overriding obligation to recognize that right by approving this amendment.

Mr. President, I have no desire to delay the Senate's consideration of the energy bill. I think the issue is very clear cut. Again, I bring it up precipitately only because I have patiently waited for 5 months for some consideration and we are running out of time. There are technical issues that must be considered. The Rules Committee, I think, is the one that should decide the terms and conditions of the broadcast. The Senate should make the decision that we go forward with this now, so that the Rules Committee can have the time to explore the methods in which the broadcast can be produced.

I do not intend to take a lot of time. I simply would like to have a vote and get back to the energy business and let the will of the Senate be done.

Mr. DOMENICI. Will the Senator yield for a question?

Mr. GARN. I am happy to yield for a question.

Mr. DOMENICI. I know that yesterday, the Senator from Utah was kind of angry at this bill. Did we do something to cause him to bring this matter to our attention on this bill? Senator Johnston and I did not want to do that.

Mr. GARN. No; absolutely they did not. It would make no difference what bill is being brought up today. Again, I repeat, I am perfectly willing to have a vote now, after the majority leader or anyone else has spoken. I have no desire to have any prolonged debate. This is a clear-cut question of whether we want to allow the debate to be televised or not and we can have it all over in 15 minutes. I am willing to abide by the decision of the Senate.

Mr. JOHNSTON. Mr. President, I love and respect each and every one of my colleagues to an almost unlimited extent. I think their ability to

speak and to hold the floor here and stir passions and to instruct the Members of this body as well as the country is almost without limitations.

Having said that, however, Mr. President, there are times when some of our colleagues, as much as we love them and as articulate and as persuasive as they are, are prone to speak maybe just a minute or two longer than is necessary.

I fall into that category and say that I am, as well, guilty of speaking too long.

But, Mr. President, we have never seen anything like what we would see on the floor of this Senate if we had the TV cameras up there filming our activities.

Mr. ROBERT C. BYRD. Well, we should have them here right now. We have entered the silly season. I wish we had TV cameras so the American people could see just what is happening on the Senate floor.

Mr. JOHNSTON. Mr. President, I can say that we would be here until virtually midnight every night.

When I was in the Louisiana legislature, and they had cameras in there, we could tell when the cameras came on because a little red eye would blink at us.

We never heard such speeches as my colleagues made when that camera was on. But let the light go out and reason would return and debate would then make a little sense, and the unnecessary speeches would not be made.

Not only would some of our more grandiloquent colleagues tend to speak longer than they would ordinarily, but some of us—

Mr. DOMENICI. What was that word? What kind of colleagues?

Mr. JOHNSTON. Republican.

Mr. DOMENICI. Oh, Republican.

We hardly ever get to talk. Maybe we need the cameras.

Mr. JOHNSTON. But, Mr. President, even those of us who try to be succinct and try not to take the Senate's time, if the cameras were in and our constituents from back home were writing and calling and saying, "Where were you, where were you when it was time for Louisiana"—or New Mexico—"to stand up and be heard and you were not there?"

It would, therefore, cause us in self-defense to make some additional unnecessary speeches. Perhaps this speech of mine, Mr. President, is, indeed, unnecessary.

I am wondering whether my colleague will want a record vote on this matter.

Mr. GARN. Oh, absolutely. I want a record vote.

Again, I have no desire to get into a long debate. That would occur only if the opponents of the SALT debate wish to engage in one. Again, it should be clear that I am only speaking of the SALT debate, I am not talking about general coverage of the Senate by television.

I would suggest to my distinguished colleague from Louisiana that his fears about grandstanding were expressed initially in the House of Representatives. They have had TV for some time now.

Mr. JOHNSTON. And those fears were vindicated.

Mr. GARN. I do not believe that is true.

The Canadian Parliament experienced the same thing, and the same fears proved unfounded.

On the Panama Canal debate, we found that with the radio coverage, during the first 2 or 3 days, some of our colleagues got rather long winded, and spoke more often and longer than they may have without it. But I think we found that pretty soon we got back to the normal routine.

So I do not have those fears, other than I would agree that perhaps for a very brief initial time we might see that happen. But I think it will simmer down.

That has been the experience in many other legislative bodies. It has been the case in courts, where attorneys initially did that. But this is a different story. I am not advocating permanent television coverage.

I am not advocating that we televise the energy bill, or anything else, but the SALT debate.

This, in my opinion, regardless of how we feel about SALT, whether for or against, we must agree is probably the most important foreign policy issue that has been debated before this Senate in the last 30 or 40 years, or maybe in this century.

I think the American people are entitled to hear that debate, to hear both sides of that debate.

Now, I am one, as the majority leader knows, who, as an individual, has been willing to agree to a time limit on the SALT debate from the very beginning.

I would be willing to consider that. As far as I am concerned, as one who spent 21½ years on the issue, I can say all I know and it will not take 2 weeks. I can guarantee that. It simply is not necessary to repeat over and over and over again, as we did on the Panama Canal debate, the same things that were said in the first 2 or 3 days.

So I, personally, would agree to a time limit. I do not know about my other colleagues.

But I do not feel we should hold hostage to a time agreement the question of allowing the American people to see the debate.

Once again, I want to emphasize that I do not care to delay the Senate in its consideration of the energy bill. I would like to finish it tonight, as well.

So I am willing, anytime, to have a vote on this issue and let the will of the Senate be heard.

Mr. Robert C. Byrd addressed the Chair.

The PRESIDING OFFICER. The Senator from West Virginia.

Mr. ROBERT C. BYRD. Has the Senator yielded the floor?

Mr. GARN. I am happy to yield.

Mr. ROBERT C. BYRD. Has the Senator yielded the floor?

Mr. GARN. I am happy to yield the floor.

Mr. ROBERT C. BYRD. I thank the Senator.

Mr. President, I am no Johnny-come-lately when it comes to advocating television coverage for the Senate, the Senate debate.

It was I who authorized the first television cameras that were ever put into the Senate Chamber at the time the late Nelson Rockefeller was inaugurated as Vice President of the United States. The then-Majority Leader Mansfield was in China and the press approached me with the request that the inauguration be televised, and I gave that approval.

So let the record show, until the crack of doom, that it was this Senator who authorized television originally.

Second, it was this Senator who led the way to have radio coverage of the Panama Canal treaties debate.

I think, as Woodrow Wilson once said, and I may paraphrase, that the informing function of the Senate is as important as the legislative function.

So I thought we ought to have radio coverage so that the American people could be informed as to the merits of the Panama Canal treaties. The Senate agreed to that judgment and we had excellent radio coverage.

May I say that public broadcasting performed in a way that was most admirable. Each evening they capsuled the developments of the day. I think that a great contribution was made by public broadcasting to that debate.

There is no doubt in my mind, and there never will be any doubt in my mind, and there will never be any force on Earth, or in Heaven, or in the place below, that will change my mind, I will always maintain that the fact that that debate was broadcast not only performed a good function of informing the American people, but also resulted in an unnecessary extension of the debate.

That debate went on for 8 weeks. It could have been completed in 4 weeks or 5 weeks. It would have been the same decision, undoubtedly. We ran the great risk in that instance—by virtue of inflammatory statements that were made on the floor from time to time and were being heard in Panama by the people there who were listening to the radio—ran the great risk of seeing some unfortunate situation develop in Panama that would have destroyed the chance for approval of the treaties.

Now, Mr. President, as to televising the debates on the SALT treaty, I personally favor this. I will say why. I believe that if the American people could be shown the merits of this treaty the support for the treaty would grow.

It was only after thoroughly reading the transcripts of the hearings and having read the treaty time and time and time again, and having read almost everything else I could get my hands on with respect to the treaty, that I reached my own decision to support the treaty.

But it was in the course of reading those transcripts that I became alert to the fact that this country is, in the early to mid-1980's going to be in a situation in which the land-based ICBM's, the land-based leg of the triad, are going to become increasingly vulnerable.

There were other things that I learned that I did not know, about the shortcomings of our national defense program.

So I think the American people need to know these facts.

But, Mr. President, to have a televised debate of this treaty without there being a time limitation would merely open the treaty up to prolonged, protracted debate and redundant and repetitious statements, and this would not be in the interest of the Senate or of reaching a considered, sound judgment on the treaty.

The thing that is of primary importance in connection with the treaty is that it be thoroughly debated and that the Senate reach a considered, sound judgment on the treaty.

Television is important; it is a fascinating and gripping idea; but television is not of primary importance here. Whether the debate on

the treaty is televised or not is of secondary importance, not of primary importance. That is of secondary importance.

I favor it as a means of better informing the people, but only if we have a time agreement, so that the time can be controlled. All Senators would then have an opportunity to have a part of the time, and the time would not be by one, two, three, or a half dozen Senators, to the disadvantage of other Senators who wish to speak. It is a gripping idea; it is fascinating. I would like to see this experiment take place.

However, do we want this experiment to take place on something which may be the most important issue on which any of us will ever vote in the Senate and under circumstances that may not be most conducive to the arrival of that sound, considered judgment on that treaty? I would like to have this experiment. I am perfectly willing to have the debate televised, but under the condition that we have a time agreement.

I have talked with representatives of the commercial networks and public television. I have talked with my colleagues on both sides of the aisle, going back over a period of months. So I have been working, exploring, trying to develop the situation; so that if indeed it is considered to be the judgment of the Senate that we should have televised debate of the treaty, we would do it in an orderly way and in a way that would be conducive to the creating of an atmosphere that is not filled with political partisanship, which would be most unfortunate, in my judgment.

Mr. STEVENS. Mr. President, will the Senator yield?

Mr. ROBERT C. BYRD. I will yield shortly.

This matter is not closed, Mr. President, and it is not a matter that should be decided on the floor of the Senate today.

I have no doubt that there are Senators who are opposed to televising this debate. I have talked with many Senators: Some are opposed; some are for it. Those who are opposed to televising the debate are fearful that it would contribute to political partisanship, and that it would contribute to extending, prolonging, protracting the debate, and to the detriment of the Senate and the treaty.

So, Mr. President, I support the idea, under the condition that there be a time agreement. I am not prepared to vote on that today, and I will vote against this amendment.

First, Mr. President, I send to the desk an amendment to the amendment.

UP AMENDMENT NO. 740 (TO UP NO. 739)

The PRESIDING OFFICER. The amendment will be stated.

The assistant legislative clerk read as follows:

The Senator from West Virginia (Mr. Robert C. Byrd) proposes an unprinted amendment numbered 740 to unprinted amendment numbered 739.

Mr. ROBERT C. BYRD. Mr. President, I ask unanimous consent that reading of the amendment be dispensed with.

Mr. STEVENS. Would the majority leader allow us to hear it?

Mr. GARN. Could I have a copy of the amendment?

Mr. ROBERT C. BYRD. Yes.

First, I ask unanimous consent that the amendment be read and that I not lose my right to the floor.

The PRESIDING OFFICER. The clerk will state the amendment.
The assistant legislative clerk read as follows:

In lieu of the language proposed to be inserted, insert the following:
"Sec. . Subsection 183(f) of the Legislative Reorganization Act of 1946, as amended is hereby repealed."

Mr. ROBERT C. BYRD. Mr. President, my amendment is offered not in the spirit of anything other than the utmost sincerity. I want to see where the Senate stands on the repeal of the 3-day rule. I have had my problems with the 3-day rule here all too long. So my amendment would repeal the 3-day rule.

Mr. STEVENS. Mr. President, will the Senator yield now?

Mr. ROBERT C. BYRD. Mr. President, without losing my right to the floor, I yield only to my good friend from Alaska, for the purpose of a statement.

The PRESIDING OFFICER. Without objection, it is so ordered.

Mr. STEVENS. Mr. President, the majority leader has shown his usual ability to be quite incisive in terms of some of the problems he deals with daily. I admire his amendment to the amendment.

First, if I may, let me talk about the amendment of the Senator from Utah. The minority leader and I have been seeking coverage for the SALT debates. For myself, I have sought that coverage only on the basis of an agreement, because I also want to get to the other subjects that are pending before this body, before the end of the year.

I am afraid that the traditional "flame and moth" problem comes with televised debates of the SALT treaty, with one-third of our Members up for election; and these proceedings, being covered by the networks and by public broadcasting, would be the greatest single contribution to all the candidates that I can think of.

Mr. ROBERT C. BYRD. And I might be catapulted into the Presidential sweepstakes, myself, if we were to televise this debate. [Laughter.]

Mr. President, I feel that I can hold my own when it comes to showmanship, if that is what it takes, and playing to the cameras. I believe I can hold my own. It might be a good idea. We might have another entry into the Presidential sweepstakes.

Mr. STEVENS. Could we have a week off to get a suntan before we appear on the tube? It always makes you look pale if you do not have a suntan.

Mr. President, this is a serious amendment by the Senator from Utah. I want to tell him that we support his objective. He knows that we support the objective. But I hope he will not pursue this amendment on this bill, because we do need some time to continue the negotiations. My good friend and I have been talking for some time, and we have been talking among ourselves, as to what would be a fair agreement to enter into in terms of not only the time limit for the debate but also the allocation of that time on the tube.

Mr. ROBERT C. BYRD. Yes.

Mr. STEVENS. I think that is as important as anything else.

That leads to the question of how many Senators will have an opportunity to present their amendments and at what time.

We have the consideration of the fact that what is prime time in one part of the country is not prime time in another part of the country. I am afraid that we would be in late every night.

Mr. ROBERT C. BYRD. No doubt about that. We might be in many nights.

Mr. STEVENS. The Senator understands that in order for me to hit prime time, we would have to be here at 11 o'clock at night. [Laughter.]

Mr. ROBERT C. BYRD. We would not want to deny the distinguished Senator from Alaska his shot at the cameras.

Mr. STEVENS. I understand that. I would not want to be denied. That is why I would like to be involved in this negotiation.

We are talking about a very serious problem, a controversial subject, about not having coverage in the West and on into my area.

As a matter of fact, in Adak, we would have to have 7 hours. We want the people in Adak to know what is going on here. When they are off from work, we have to have 7 hours.

So the majority leader would not mind, I am sure, being in session at 1 a.m. to assure equal coverage for the people of Adak.

It is a very serious problem, I think, that should be negotiated out so that we know what we are doing. I think we need representatives of the networks involved in those negotiations as well as public broadcasting, as well as the Members of the Senate who are deeply interested—and I am deeply interested in seeing it done because I think it would be a unique experience—on probably the most controversial subject before the Senate this year; that is, if we forget about windfall profits tax, this bill, the water resources bill, the Alaska lands bill, and a few other bills.

What I am saying is I think if we open the door on this one we are going to face similar demands for the future, and we better know where we are going and what the time frames are for control of the time.

With due regard to my friend, I do not want to delegate that to the Rules Committee, and I think this amendment will do that as I understand it.

The PRESIDING OFFICER. The Senator from West Virginia has the floor.

Mr. ROBERT C. BYRD. Mr. President, without losing my right to the floor, I yield now to the distinguished Senator from Utah.

Mr. GARN. I thank the distinguished majority leader.

Mr. President, I say first of all to my distinguished colleague from Alaska as well—he was not here when I called up this amendment—I repeat to those colleagues who have since arrived, that I originally introduced this amendment as Senate Resolution 158 on the 10th of May, and in 6 months, nothing has happened with it. My concern is that time is running out.

I agree with the vast majority of what the majority leader has said about this, and I certainly did not in any way indicate that he was personally opposed to having a SALT debate on TV. Quite the contrary. I recognize his past leadership on this issue.

Mr. ROBERT C. BYRD. The Senator will agree that I am a man of honor.

Mr. GARN. Yes, if we do not have a Saturday session. [Laughter.]

Mr. ROBERT C. BYRD. I think that is what Anthony said about Brutus. "Brutus is an honorable man."

Mr. GARN. We both agree that we are both honorable.

Mr. ROBERT C. BYRD. We start with that premise that all Senators are men of honor.

Mr. GARN. I have the utmost admiration for the distinguished majority leader and I think he knows that.

Mr. ROBERT C. BYRD. I was just reminding the Senator of what he said last evening.

Mr. GARN. I understand that.

Mr. President, in making the decision to bring this amendment today up, I considered the fact that 3 or 4 weeks ago, if I may address some of the concerns that were brought up by the Senator from Alaska, I wrote the Rules Committee a letter simply asking that we conduct a test; that we get into some of the technical issues' factors and we find out what the technical feasibility is of televising the floor proceedings. It may not be that the lighting is sufficient for example, and there are other kinds of mechanical details.

I did not think that was an unreasonable request that we begin to answer those technical questions. Then we would know. But I received no assurance at all that that would be done. In fact, the letter back from the Rules Committee did not really address the question of a test. So I brought this up today, to demonstrate my great concern for this question.

In bringing it up, to show the great respect I have for the majority leader there was no doubt in my mind that I would not be able to get a vote on this amendment, not because the majority leader is opposed to TV. I understand he wants a time agreement with it, and I can accept that, I do not disagree with him at all. I tried to think of all the things he would do to keep me from bringing up and getting a vote, and I did not know what, but I knew that he would find something and I would not get a vote, because he wants to wait for a time agreement.

Nevertheless, I wanted to bring it up and discuss it and bring out my concerns about the need to have this debate brought to the American people. We can make light of it, if we want, though I am sure some of the things Senator Stevens pointed out about time difference and all of that are correct. But forgetting all the levity, and I enjoy it, too, I do think this is a serious matter, and I would really like for us to proceed. We are running out of time. I expect the Foreign Relations Committee will complete its consideration of the treaty soon. I expect it will be ready for action later this month. If we are going to have TV, regardless of the fact that, as the minority whip indicated, these negotiations have been going on, we have got to test the technical feasibility. I would appreciate it if we could at least get some commitment to proceed with making some of the technical tests and decisions that would then allow us to make the political or the philosophical decision of whether we want to allow the cameras. Otherwise, we might make the decision and find out that, although most of the networks assure me with new cameras' low light capabilities are adequate, they may be unable to do it with existing lights. We have not tested that.

I feel very, very strongly that we should do it, but at the very least at this time we should start pressing along, taking those steps that would make it possible for us to make that decision.

Is there any possibility that we could get the Rules Committee to conduct a test?

Mr. ROBERT C. BYRD. Mr. President, the Senator is asking me that question. We have had tests in the Senate. I have been present when the tests were conducted, and Senator Cannon was present when the tests were conducted. Others have been present. We have not had any, recently. But we have had some tests not too long ago, which brought out some problems.

I was amazed when I found that after we had those tests and we were talking about having television we got about 30 objections, I am told by my staff, 30 objections from the print media to having television because all the cables and other equipment up there would get in their way. The print media objected. That was just an indication of the fact that there are problems. Maybe the print media expressed concerns. I should not say they objected. In any event, there were those problems.

May I say to the distinguished Senator I have attempted to proceed in an orderly fashion to explore this matter. Has the Senator discussed it with representatives of public television?

Mr. GARN. I have discussed it with representatives of the three networks and public television, and I think the majority leader is well aware that they have proposed jointly that the four of them would pool the coverage. So, yes, I have met with representatives of the three commercial networks and also public television.

Mr. ROBERT C. BYRD. Mr. President, I have attempted to explore it, as I say, in an orderly fashion. I have attempted to discuss it with my colleagues, also. I wanted to know how they felt about it. I do not think that this is the appropriate bill to bring up this amendment or the appropriate time.

I think the Senator knows that with all due respect to him, I love him and am fond of him as I am of the distinguished Senator from Wisconsin, whom I love and respect, as I said yesterday. But this is the wrong time and the wrong bill.

I regret to vote to table my own amendment to repeal the 3-day rule. Who would have ever thought that the day would come when I would vote to table an amendment to repeal the 3-day rule. Oh, that thorn in my side. Oh, my back, my aching back—that 3-day rule.

Now I have the opportunity to vote to repeal the 3-day rule, and who would have thought it? I am about to move to table the amendment.

Mr. GARN. Mr. President, will the Senator yield?

Mr. ROBERT C. BYRD. Yes; I yield.

Mr. GARN. As I said, I really never cease to be amazed at the majority leader's ingenuity with the rules. The 3-day rule is one that the majority leader knows is very valuable to the minority and if it ever switches and we are in the majority—

Mr. ROBERT C. BYRD. It is not going to switch.

Mr. GARN. If we are ever in the majority, he will wish the 3-day rule was there.

Let me say what I said to begin with, Mr. President: It was not my intention in bringing this up to delay the Senate. We have important business. I wanted to make a point about my feelings, the fact that since May 10 I had received no indication of any intention to act on my resolution. I have learned at least one thing in 5 years in the Senate—

how to count. I do not think it is necessary even to waste 15 minutes of the Senate's time voting on a motion to table. Therefore, I withdraw my amendment.

Mr. ROBERT C. BYRD. Mr. President, the Senator cannot withdraw it. Action on his amendment—

The PRESIDING OFFICER. There has been no action.

Mr. ROBERT C. BYRD. I have offered an amendment to it.

I ask for the yeas and nays.

Mr. GARN. Mr. President, parliamentary inquiry. I suggest the absence of a quorum.

Mr. ROBERT C. BYRD. The Senator does not have the floor and he cannot suggest the absence of a quorum.

The PRESIDING OFFICER. The Senator from West Virginia does have the floor.

Under the Senate precedents, the Senator from Utah may withdraw his amendment.

Mr. GARN. That is right.

Mr. ROBERT C. BYRD. I hate to see the Senator withdraw his amendment. I want to get a vote on the 3-day rule, and a vote to table the Senator's amendment would table mine.

Mr. GARN. I understand exactly what the majority leader wants to do, and I wish to withdraw my amendment.

The PRESIDING OFFICER. The Senator from West Virginia has the floor.

Mr. ROBERT C. BYRD. Mr. President, did the Senator wish me to yield? I yield without losing my right to the floor.

The PRESIDING OFFICER. The Chair will rule now that the Senator from Utah must have the floor if he wishes to withdraw his amendment.

Mr. ROBERT C. BYRD. That is right. I yield to the Senator from Utah for the purpose only of allowing him to withdraw his amendment.

Mr. GARN. I thank the distinguished majority leader. For the third time I withdraw my amendment.

The PRESIDING OFFICER. The amendment is withdrawn, and with it the amendment of the Senator from West Virginia falls.

Mr. ROBERT C. BYRD. Oh, there goes my amendment.

Mr. Melcher addressed the Chair.

Mr. ROBERT C. BYRD. I yield to the Senator from Montana without losing my right to the floor.

Mr. MELCHER. I thank the Senator.

I want to get back to a part of the bill dealing with energy. On page 67, at the bottom it states:

Provided further, That such term (synthetic fuel project) shall include for the sole purpose of financial assistance pursuant to subtitle D any commercial magnetohydrodynamics facility located in the United States.

The relevance of my statements that are to follow, Mr. President, is that included in the bill dealing with this point on magnetohydrodynamics is that MHD, as it is commonly called, has received some appropriations from Congress beginning—with slight amounts prior to 1971—but in fiscal year 1971 the amount appropriated was \$500,000 for MHD research and development. The program increased rapidly percentage-wise, because it was such a small amount, through the next fiscal years, and eventually in 1976 we got to where we thought there

was a breakthrough because Congress appropriated \$41.3 million for the program.

Now in 1977 that amount was increased to \$58.9 million; in 1978 to \$71.5 million; and in fiscal year 1979, \$80 million.

This year in the Senate appropriation bill dealing with the program the Senate appropriated \$130 million, while the House only appropriated \$75 million. Right now on this very day a conference committee is meeting to try to finalize action on the conference report.

I am taking the floor at this time to demonstrate to the Senate what we would be losing if we did not move forward with MHD research and development.

I am sure there are plenty in the Senate and in the public-at-large who have no comprehension of what the MHD program is. Let me read to you a report which clearly—

Mr. ROBERT C. BYRD. Mr. President, I have the floor. How long does the Senator wish to speak, may I ask?

Mr. MELCHER. I would think about 15 minutes.

Mr. ROBERT C. BYRD. Mr. President, I ask that I may be permitted to yield for that length of time without losing my right to the floor.

The PRESIDING OFFICER. Without objection, it is so ordered.

Mr. MELCHER. I thank the leader.

The report states:

A conventional fossil fuel generator now gets around 35 to 40 percent efficiency and nuclear power plants have an even poorer track record, about 33 percent efficiency. Present technologies waste more potential energy than they convert for use.

MHD's potential for up to 60 percent efficiency gives it an edge of about 50 percent over all presently-used methods. Obvious environmental and economic advantages result from increased efficiency.

When you are able to produce more electricity from the same amount of coal, you save money. When you are able to produce more electricity from a certain amount of coal, the ratio of environmental effects to amount of energy produced is balanced a little more toward Mother Nature's side.

Researchers across the country largely concur that sulphur dioxides and the vapor from potassium salt will combine at the high temperatures required in the MHD cycle. The potassium is costly and must be recovered. So, too, would the sulphur emissions. Researchers continue to study a possible sulphur dioxide problem in the MHD process, but, to date, studies still indicate sulphur dioxides will be contained from 92 to 99 percent if enough potassium is used in the seeding process.

MHD's other major environmental selling point—that it requires little cooling water—makes it attractive to areas concerned with thermal pollution. Figures of heat rejected per kilowatt-hour of electricity produced in a study done at Avco Everett Research Laboratory show an MHD-steam turbine plant would release 0 percent of what the present nuclear plant releases; 36 percent of what an advanced nuclear plant will release, and 45 percent of what other fossil fuel steam plants release.

However promising it appears, MHD is not a messiah of energy conversion. Although it has obvious advantages over present technologies, it still is a process that burns coal, and may be caught in typical pitfalls experienced by other fossil fuel burners.

Research shows particulate matter will be emitted from an MHD plant at a rate equal to conventional fossil fuel plants. A study recently completed by the Fontana Energy and MHD Research and Development Institute (MERDI) noted that the high temperatures necessary to complete the MHD cycle may increase emission of sub-micron particles.

Researchers agree that nitrogen oxides will form at a much higher rate in the MHD cycle than other fossil fuel plants. But researchers have generally agreed that nitrogen oxide emissions could be controlled in the MHD cycle to less than present Environmental Protection Agency (EPA) standards.

Two processes are being studied presently to handle the high formation of nitrogen oxides. First, and most probable at this time, are combustion techniques that will set a ratio of air to fuel to allow for the least formation of nitrogen oxides. A radiant boiler downstream from the MHD channel could allow slight cooling of the bases to the point where the nitrogen and oxygen will decompose.

The other possibility is to encourage the formation of nitrogen oxides and remove them for production of fertilizer. Although the idea is widely discussed in the MHD community, technology has not been developed to the point where it is considered a workable option now.

India and Japan, two of about 20 countries interested in and presently researching MHD's possibilities, are interested in the process largely because of its potential as a fertilizer supplier. Decreasing availability of natural gas, the prime element in fertilizer production, may make recovery of nitrogen oxides so attractive economically that technologists will respond with a means of recovering the nitrogen.

Dr. F. A. Hals, an Avco scientist who has done substantial research and testing in the environmental effects of MHD, believes controlled combustion can decrease the level of nitrogen oxide emissions to a third of the present EPA standards, possibly to as little as one fifth of the present standards.

Nitrogen oxides are more easily controlled in an MHD process, Hals said, because the MHD channel is small (a commercial plant's channel is comparable in size to a typical family garage) and combustion is achieved in a smaller volume because of the high temperatures.

Research done by Pittsburgh Energy Research Center (PERC), Avco, and Stanford University has shown nitrogen oxides can be controlled to EPA standards, possibly considerably less than present standards.

However, research being carried out at the Exxon Research and Engineering division under contract with the EPA indicates nitrogen oxides could be a problem. Figures taken from a computer analysis of the chemical reaction of nitrogen oxides in the MHD cycle show the effluents in an MHD plant could just meet present EPA standards.

Standards for nitrogen oxides are expected to tighten, and if they do and the Exxon figures are correct, nitrogen oxide effluents will exceed the limit. One study done under contract to Exxon showed nitrogen oxide effluents to be about 400 to 600 parts per million. Present standards allow 500 parts per million.

Dr. Henry Shaw, a physical chemist who is researching the environmental aspects of MHD for the Exxon study, said he has become less optimistic about MHD as the study has progressed. He is about half way through the 30-month project.

"It is a unique technology in many respects," he said. "But it has, in our opinion, many problems in development."

Shaw is concerned about control of nitrogen oxides, as well as regeneration of the seed. The potassium is separated from the sulphur because of its high cost. Methods of effectively doing that on a large scale have not been proven and may not be cost-effective. Shaw hopes the Exxon study will encourage the federal government to allocate funds to areas in need of more research. He said Exxon would not design a plant with the information it now has available, but that concerted and immediate research could solve the problem.

MERDI senior staff engineer Roman J. Kramarsic said he was not surprised Exxon would not build an MHD plant with the information they have now. He noted they did not have expertise in MHD technology. Avco, Westinghouse Research Laboratories and General Electric have contracted with the Department of Energy (DOE) to do a preliminary design of an MHD pilot plant. Westinghouse and G.E. previously contracted with the federal government in the Energy Conversion Alternative Study (ECAS) to evaluate the prospects of MHD.

Most research today is directed toward open-cycle MHD with a steam bottoming plant. However, other options exist. A gas turbine could be used as a bottoming cycle for an open-cycle plant. A closed-cycle MHD system would involve separate treatment of the seed material and coal. The seed gases would be recirculated. The main problems involved with the use of a closed cycle center around development of feasible heat exchangers. Others processes could work in conjunction with a closed-cycle MHD system. For example, it has been suggested that the waste heat from a nuclear power plant could be used in a closed-cycle MHD plant.

However, a closed-cycle MHD plant is much further in the future than the open cycle and most of the MHD research being done today is directed toward use of an open cycle.

Although MHD may have more problems environmentally than was first visualized, it has on its side time—in terms of research and development—and a more concerned public as well as government. Unlike the “old days,” when technologies were developed and environmental effects were evaluated far down the road, DOE policy calls for technological and environmental research to proceed hand in hand. That gives MHD and 10 other advanced technologies under study a head start environmentally.

And for MHD, more so than most of the other technologies, increased efficiency is an added advantage. Researchers at MERDI say MHD’s potential efficiency means that given the same amount of coal, an MHD generator will produce 4,500 kilowatt-hours of electricity, while a conventional plant will produce 3,000 kilowatt-hours.

Dr. Ralph Detra, Vice President in MHD power generator at Avco, testified before a Senate committee for increased MHD funding a year or two ago. He pointed to the NASA ECAS study that evaluated the six most promising advanced energy conversion technologies. He said it showed MHD to be the most efficient studied. And, he said, MHD received the highest environmental rating for cleanliness and projected capital costs were less with MHD than other methods studied.

“If, for example, in 1976 fossil fuel power plants in Massachusetts had been operating with the MHD system,” Detra said, “fuel savings alone would have been nearly \$300 million.”

Why, given its promise, at least on paper, hasn’t MHD become a reality? For one thing, although the ECAS study showed it to be least expensive to operate, costs and time of research and develop necessary were higher with MHD than most of the other advanced methods.

A closer look at the history of MHD research and governmental allocations should cast more light on the subject.

It seems there is nothing new under the sun; not even in advanced technology. Michael Faraday first theorized on the MHD concept in 1832. He speculated that electricity could be generated by passing a plasma (or gas) through a magnetic field. Then he left the idea on the shelf. No one picked it up until more than a century later when American scientists began to take a closer look at the concept.

By 1958 Avco had built a small MHD generator intended to demonstrate the basic ideas of the principle were sound. An early leader in the field, Avco built other models and continued research through the 1960s, joined by the Arnold Engineering Development Center, the University of Tennessee Space Institute, PERC and other universities and research institutes.

Occasional grants were obtained for research from various governmental agencies. The agency that seemed the most appropriate source for research allocations for MHD was the Office of Coal Research (OCR) under the Department of the Interior, and they were notably non-pulsed by the MHD concept.

Initial research had been financed partly by private industry, but MHD research proved costly. In 1967 private companies were willing to share half the costs of a pilot plant program with the federal government. But just as research and interest in MHD was gathering momentum, governmental interest and funding turned to other energy providers—notably nuclear power—and MHD was back on the shelf.

Montana Energy and MHD Research and Development Institute (MERDI) in Butte, Mont., has played an important role. MERDI was to coordinate MHD research in Montana, and eventually the country through the federally-funded Component Development and Integration Facility (CDIF) at Butte.

The CDIF will be used to test components for an MHD plant and its successor, the ETF, to be built by the mid-1980s, is planned to produce 80 to 100 megawatts of power. A commercial plant is planned after that.

Possible problems in the technological aspects of the MHD process persist. Most of them deal with the effects of burning coal at such high temperatures—up to 5000 degrees fahrenheit—and the velocity of the gases as they pass through the channel at nearly the speed of sound.

The MHD process has been described as a rocket firing into a magnet. Finding materials that will withstand such high temperatures and corrosive conditions is of prime importance. The seed material and slag carry over will cause both

erosion and corrosion in the MHD channel. And coal slag buildup on the electrodes in the channel could be a problem. However, research at Avco indicates the slag may be a blessing in disguise. Its buildup could protect the walls of the channel and eliminate worry about the effects of high temperatures.

Despite its early pioneering in MHD technology, the United States is not the leader in MHD research today. USSR scientists became interested in MHD in the 1960s. When the results of Avco's Mark V generator were declassified in 1964 Soviet scientists reviewed the tests. Then they went back to Russia and began work on a full-scale program. Within seven years they had built an MHD pilot plant, the U-25.

The U-25 has operated at more than 20 megawatts for about 30 minutes and in the spring of 1975 it produced 12.4 megawatts of power, enough to supply energy to a central power grid to meet the demands of 100,000 Moscow residents for half an hour. Since then a 200 megawatt thermal plant is on line and Russia has started construction on a 500-megawatt plant.

MHD presently is the largest technological exchange between the U.S. and USSR. U.S. scientists sent a \$2.5 million superconducting magnet to Russia for use in their pilot plant. The Soviets plan to have a commercial plant operating in the early 1980s that will produce 400 to 500 megawatts of power. Presently they are burning natural gas, but they plan to use coal in the future and are looking with increasing interest at U.S. research in coal use.

The primary reason the Soviets have jumped ahead of this country in MHD development is that their approach has been toward a whole program, with no delays because of inadequate funding, according to a Soviet engineer and MHD specialist who recently visited MERDI. Valeriy Ovcharenko, who represents the USSR in the energy policies and projections branch of the United Nations, said our system of private enterprise and federal spending has resulted in research funded on a yearly basis and directed at developing separate elements—such as the superconducting magnet—whereas the Soviets have gone ahead with a full-scale program aimed at building a commercial plant.

"It happens the conditions for cooperation are very favorable," he said. "The Soviet Union agrees to build a U-25 by-pass loop for experiments and the U.S. agrees to supply some of the elements."

The development of MHD as a technology obviously is benefited by joint cooperation between the two countries, as well as several other countries also involved in MHD research. More importantly, in terms of its environmental aspects, is the research of potential environmental problems and effects that is going on in concert with the development of the technology.

Dr. Hals, Avco researcher, noted the difference in approaches: "I think what one did in the past was because you had a cheap source of energy in this country. As we are proceeding we are getting more and more concerned with the environment. You can't neglect the environmental impact of any proposed power system. It ought to be included in whatever costs you are projecting."

Hals noted that costs of installing environmental controls after a plant is built. Although costs are always high, he said, "you can't dismantle a conventional power plant very easily. To dismantle a nuclear power plant the costs are almost as much as putting it together."

MERDI's recent contribution to DOE's environmental development plan for MHD notes the importance of environmental research and technological research progressing hand in hand. And DOE's policy for developing technologies clearly states environmental problems will be tackled not after the fact, but as part of the fact—part of the process.

Don Brelsford, head of the environmental research division at MERDI, agrees with the concept. But he remembers a time when technology went ahead without environmental considerations. "We were just doing the hardware and the environmental sides were saying, 'Why don't you clean up your act?' The public has made it plain they won't accept technology not compatible with health and quality of life," he said.

"With integrating environmental and technological factors, the technology can be optimally adopted so that environmental problems can be minimized, or the technology is dropped," he said. "It would have been interesting if that would have been done with atomic energy. It probably would have been dropped way back then."

The Exxon study also noted the new approach: "The pollution caused by existing energy conversion processes has contaminated our environment and caused

serious health problems. Control of these effluents within reasonable limits is a goal sought by both government and industry. However (present) methods used for pollution abatement also cause some reduction in energy conversion efficiencies and add to the costs. Thus, while considering new energy conversion cycles, it is essential to investigate related pollution problems and their control."

With the cost of energy seemingly rising every day, the concept of cost-effectiveness in energy processes changes. Energy will not be cheap in coming decades, no matter what courses are taken. Environmental considerations in developing technologies may increase the cost of energy, but decisions—taking into consideration both technological and environmental aspects—may be made during research and development. If environmental problems are addressed along the way, instead of as an afterthought, and the promise of MHD and other advanced technologies proves out, increased efficiency and environmental cleanliness will be a financial boon when the systems become a reality.

Mr. President, of all the research and development programs we have concerning coal state this is a technology that we look to for central station generation of electricity.

In my State of Montana and in the State of Utah, the question of getting steam generating plants approved burning coal under conventional methods has been a very time-consuming and often not successful effort.

We have just approved in Montana the so-called colstrip 3 and 4 plants, but it took 4 or 5 years to get that approval; approval was delayed to prove that effluents from the stacks would be acceptable in terms of air quality. Approval envisions getting sufficient quantities of water for the cooling process, and in every instance of a steam generating plant using the conventional method of generating electricity in the West that has come up in the past several years it has been an extremely long, drawn-out process for approval and permits.

What we are looking for in Montana and other Western States is a clean method of generating electricity using coal, where the air quality is not sacrificed, where the water demands are low, and where the efficiency of the operation is increased. MHD research and technology so far has indicated that this technology is the most promising of all for such generation of electricity using coal.

Now, Senators might ask what are other countries doing with it? Well, let me point out that the Soviet Union has on line a 250-megawatt thermal MHD plant.

They have started construction of a 500-megawatt electrical generating plant, to be located some 100 kilometers south of Moscow. That plant would actually produce electricity in terms of 250 megawatts, and could be used for the additional generation of 250 megawatts on the other cycle, if they so chose, but it would appear that the plans right now are to use the great amounts of heat provided by the MHD cycle to heat buildings in the area.

It is important for the Senate to understand that the Russian technology on MHD does use natural gas, but it is their intention that in the future plants they will start to construct using the MHD process they will change to coal.

Why do we have a reluctance in Congress to move toward a meaningful effort in MHD research and development? That answer must lie within the Department of Energy. We have had some difficulty in the past in getting acceptance of upping or increasing the amount of research and development within the Department. However, this year, as a result of the Senate's request of last year, the Department has

prepared a capability study to indicate what they could do if the amount appropriated by Congress for the MHD research and development program were increased.

They assumed the figure of \$120 million, which was slightly below the amount that we passed in the Senate version of the appropriation bill dealing with this research and development, but it is considerably greater than the amount that the House has seen fit so far to agree to. They have indicated that the additional funds for fiscal 1980 to accelerate the technology and development, to enhance the engineering test facility, in title I, starting phase, of fiscal year 1984, could be improved upon.

Their capability study indicates that the budget for MHD is categorized in five different areas. First of all, the component development integration facility project; second, the engineering development; third, engineering test facility; fourth, systems engineering; and fifth, supporting research.

Taking an additional amount of about \$28 million over last year's appropriation they would increase the component and development integration facility project by \$14 million during fiscal year 1980. They indicate how they would break that down. They would augment the ironcore and superconducting magnet development by \$4 million, increase the operation for this component development integration facility by \$8 million, and augment first and second generation flow train development by about \$2 million.

Engineering development would be increased by \$11 million. Increasing the operations capability of the coal-fired flow facility in Tennessee, with modification of that facility in Tennessee to accept low-slugging HRSR and power train subsystems, operating on both eastern and western coals, a small increase in coal combustors, and several other items. They would increase specific priorities for engineering development by about \$11 million, and that would, in effect, demonstrate the wise use of an additional \$28 million increase in outlays above the amount that was appropriated and was spent for fiscal 1979.

Now, Mr. President, with all of the positive notes I have listed, it seems incomprehensible to me how any conference dealing with this subject could ignore the national interest that is involved in furthering our research and development capabilities for this very fine program.

The fact that we are trailing the Russians in this technology is of concern to us, but it is not just a matter of competition between two countries. It is a question of whether the United States, relying on coal as one of the greatest and most significant sources of energy to solve our energy needs in this country, is going, with cohesion and directness, into the technologies that will solve those very problems.

I think we can safely say that with a few million dollars more than was appropriated in fiscal 1980 we can move the program forward on its time frame by at least 1 year. The capability study developed by the Department of Energy seems to bear that out; at least, in my judgment, convinces me that that is the case.

If the House amendment of \$75 million would be adhered to and that is the final amount that the conference agrees to, we are dropping back in the research and development for MHD by a significant amount. Remember that \$80 million was the amount expended for this

purpose in fiscal 1979. Seventy-five million dollars would represent a \$5 million decrease. But, in addition to that, when the effect of inflation is figured in, it would be an additional decrease of about \$8 million—a step backward of at least \$13 million from what we did in 1980, a serious jolt to the MHD research and development program, and one serious enough to move it back a full year.

So the options are, by moving forward with at least a \$28 million increase over fiscal 1980, which would be about \$108 million, we have the option of moving forward 1 year. If we settle on the House's position of \$75 million, we would move back 1 year. We would lose, in effect, 2 years.

I cannot believe that Congress can assert leadership in energy research and development, particularly with coal, by moving backward in one of the key areas for our research and development efforts.

I would hope that the conferees, when they meet this afternoon, will keep these thoughts in mind and be constructive on the MHD research and development program for the coming fiscal year.

Mr. President, I thank the majority leader for yielding me this time.

Mr. ROBERT C. BYRD. Mr. President, I thank the distinguished Senator from Montana.

UP AMENDMENT NO. 741

Mr. President, I call up an amendment and I ask that it be stated by the clerk.

The PRESIDING OFFICER. The clerk will report.

The legislative clerk read as follows:

The Senator from West Virginia (Mr. Robert C. Byrd) proposes an unprinted amendment numbered 741.

On page 151, strike lines 20–24, and insert the following:

(5) "Alcohol" means—

Mr. ROBERT C. BYRD. Mr. President, I ask unanimous consent that further reading of the amendment be dispensed with.

The PRESIDING OFFICER. Without objection, it is so ordered.

The amendment is as follows:

On page 151, strike lines 20–24, and insert the following:

"(5) 'alcohol' means methanol, ethanol, or any other alcohol which is produced from coal or renewable resources and which is suitable for use by itself or in combination with other fuels as a motor fuel;"

METHANOL FROM COAL: AN IMPORTANT FUEL OPTION

Mr. ROBERT C. BYRD. Mr. President, the Senate has made a clear decision on synthetic fuels in title I of S. 932—we will have a strong and aggressive development effort of substitutes for crude oil.

That decision must be extended to title II. My amendment will fill a gap in the gasohol title by including methanol made from coal in the definition of alcohol fuels.

The purpose of the amendment is to make certain that methanol from coal is not excluded from the jurisdiction of the Office of Alcohol Fuels in the Department of Energy, which title II establishes. More importantly, the amendment insures that coal-based methanol will not be excluded from the financial assistance available to other alcohol fuels.

Purchase agreements, price guarantees, and loan guarantees are provided in title II for the production of alcohol fuels. These financial arrangements will greatly aid those seeking to produce clean-burning substitutes for gasoline and diesel fuel.

The technology to produce methanol from coal already exists. In fact, studies by the Department of Energy and by the Office of Technology Assessment conclude that methanol can be produced for between 40 and 80 cents per gallon.

The studies estimate that gasoline costs about 80 to 85 cents per gallon to produce at current prices. Most ethanol made from farm products costs about 80 cents to \$1.50 per gallon to produce.

The advantages of methanol from coal extend beyond production costs. Methanol is far cleaner than gasoline when it is produced and when it is burned. It can be substituted for gasoline, diesel fuel, kerosene, and home heating oil. Methanol production is clean and free from hydrogen emissions, which makes it cleaner than a typical oil refinery.

The potential of a fuel which has these advantages and possibilities must not be dismissed. I believe it is sound policy to move ahead with the development of this substitute for imported crude oil and refined products.

I urge that my amendment be adopted.

Mr. DOMENICI. Mr. President, I regret to tell the majority leader that there is strong opposition to this amendment in committee. I will have to ask for a quorum call while we advise Senators it is the pending amendment and determine whether they desire to be heard.

Mr. President, I suggest the absence of a quorum.

The PRESIDING OFFICER. The clerk will call the roll.

The second assistant legislative clerk proceeded to call the roll.

Mr. ROBERT C. BYRD. Mr. President, I ask unanimous consent that the order for the quorum call be rescinded.

The PRESIDING OFFICER. Without object, it is so ordered.

Mr. ROBERT C. BYRD. Mr. President, I ask unanimous consent that my amendment may be laid aside temporarily so that Senator Matsunaga may call up some amendments.

The PRESIDING OFFICER. Without objection, it is so ordered.

The Senator from Hawaii (Mr. Matsunaga) is recognized.

UP AMENDMENT NO. 742

Mr. MATSUNAGA. Mr. President, I send to the desk an unprinted amendment and ask for its immediate consideration.

The PRESIDING OFFICER. The amendment will be stated.

The second assistant legislative clerk read as follows:

The Senator from Hawaii (Mr. Matsunaga) proposes an unprinted amendment numbered 742.

Mr. MATSUNAGA. Mr. President, I ask unanimous consent that further reading of the amendment be dispensed with.

The PRESIDING OFFICER. Without objection, it is so ordered. The amendment is as follows:

At page 311 at line 17, delete ' ' and insert in lieu thereof ' , with a minimum of \$10,000,000 specifically for energy self-sufficiency initiatives. '

Mr. MATSUNAGA. Mr. President, this is an amendment which was discussed in committee. Since it was thought the committee report might be insufficient to clarify the matter, it was felt that language in the bill itself might be a safer way to do it. It makes no change in the total amount to be authorized, which remains at \$50 million, in title 6. It merely identifies \$10 million to initiate a program which will enable the Department of Energy to develop a comprehensive plan and to implement projects to combine synergistically the available renewable energy resources at sites which have already been studied to reduce fossil fuel importation.

I have discussed this matter with the majority and the minority and it is my understanding that there is no objection to the amendment.

Mr. JOHNSTON. Mr. President, I am sorry not to be acquainted with the amendment. Will the Senator repeat precisely what this does?

Mr. MATSUNAGA. The various titles and sections of S. 932 largely promote the utilization of individual technologies. Section 607 of the renewable energy initiatives title attempts to bring together all the renewable energy alternatives in commercial applications to demonstrate the total system.

As the Senator knows, the authorization calls for \$50 million total. My amendment will not in any way change that total. It merely identifies \$10 million to initiate this program, which will enable the Department of Energy to develop a comprehensive plan and to combine synergistically the implementation of the available renewable energy resources at sites which have already been studied, to reduce fossil fuel importation.

At the staff level, this has been discussed and the language agreed to.

Mr. JOHNSTON. Unfortunately, staff has not discussed it with me. I am hopeful that we can accept it here.

Does the minority manager wish to say anything?

Mr. DOMENICI. No, Mr. President, we have discussed this amendment at the staff level and they have shared their views with me. We have no objection to this amendment.

Mr. MATSUNAGA. I might say to the Senator from Louisiana that this measure was taken up in committee and agreed to. No objection was raised in committee. I see no reason why this would not be acceptable now.

Mr. JOHNSTON. Mr. President, as I understand it, what the Senator wants to do is take some of the money that is presently allocated to renewables and put it in a special office designed to promote energy self-sufficiency in Hawaii or on an island. Is that correct?

Mr. MATSUNAGA. That is correct.

Mr. JOHNSTON. What would this money be spent for? Why should we have \$10 million in a special fund for Hawaii?

Mr. MATSUNAGA. It is not for Hawaii strictly. It is up to the Department of Energy to select a site, a locality—it could be an island, it could be a State, it could be a county—to make that specific selected site energy self-sufficient in order to prove that energy self-sufficiency can be attained. As the Senator knows, we have a great possibility of making perhaps one of the islands in Hawaii or Puerto Rico, or even areas in Florida and California, energy self-sufficient by use of those resources which are available within that area.

I cite one example: The big Island of Hawaii, which was largely dependent upon foreign imported oil only a few years ago, today generates 40 percent of its electricity from biomass; that is, sugarcane waste.

Then we have had a breakthrough in OTEC, ocean thermal energy conversion. By an accelerated program in this area, we hope to produce another 10 or 20 percent of the total electricity produced.

We also have a geothermal well which will be producing, by August 1 of next year, about 3 megawatts.

I might point out to the Senator from Louisiana that this is within, definitely, the concept of the bill itself, that there is definitely a policy expressed in the existing language of the bill that this will be one of the objectives of this bill to attain energy self-sufficiency.

Mr. JOHNSTON. Mr. President, I wonder if the Senator, in lieu of the kind of language that says, "with a minimum of \$10 million," specifically for self-sufficiency initiatives, would be willing to put "with not more than \$10,000,000," and have a colloquy here that will urge the Department of Energy in submitting their budget to set aside a sufficient amount?

My hesitancy is this, that for us to pick a special figure and say that it must be a minimum of \$10 million may be misallocating the funds instead of putting them where they can do the best good for the purpose of self-sufficiency.

In other words, it may be better to put more money into wind energy research and development, for example, then to spend \$10 million a year for office expenses, in effect.

I mean, I want to go along with the Senator in what he is trying to do because it is a constructive thing and we are for it in the committee, I think. But to specify a hidebound figure of \$10 million concerns me.

Mr. MATSUNAGA. I might point out to the Senator from Louisiana that this is not for the purpose of actual office expense. It is implementation of projects.

We are quite advanced to a point where, as the Senator well knows, we can definitely work toward energy self-sufficiency in some sites that the Department of Energy has in mind.

This, as the Senator knows, is not opposed by the Department of Energy. As a matter of fact, it is supported by the Department of Energy.

I regret the staff had not had a chance to brief the Senator. I thought it had been done.

Mr. JOHNSTON. I think we can work something out here because I know what the Senator is driving at.

I do not think we have got a problem of \$10 million so long as it is used on initiatives which may be useful in, I think, energy self-sufficiency, because that would include a broad range of initiatives.

I wonder if this kind of language would be suitable to the Senator, "with a minimum of \$10 million to be spent on initiatives which may be used, or useful, to attain energy self-sufficiency"?

Mr. MATSUNAGA. I would be happy to accept that modification.

Mr. JOHNSTON. If the Senator would perhaps temporarily lay this aside, I think we can draw this language and bring up the next amendment.

Mr. MATSUNAGA. I agree.

Mr. President, I ask unanimous consent that the amendment be set aside temporarily and that I may offer a second amendment.

The PRESIDING OFFICER. Without objection, it is so ordered.

Mr. DOMENICI. Mr. President, this means we are still temporarily setting aside the leader's amendment, is that correct?

Mr. ROBERT C. BYRD. Mr. President, I ask unanimous consent that my amendment continue to be set aside temporarily so that other amendments may be called up.

The PRESIDING OFFICER. Without objection, it is so ordered.

UP AMENDMENT NO. 748

(Purpose: To amend S. 982, to extend the Defense Production Act of 1950, as amended)

Mr. MATSUNAGA. Mr. President, I send to the desk an unprinted amendment.

The PRESIDING OFFICER. The amendment will be stated.

The second assistant legislative clerk read as follows:

The Senator from Hawaii (Mr. Matsunaga) proposes an unprinted amendment numbered 748.

Mr. MATSUNAGA. Mr. President, I ask unanimous consent that further reading of the amendment be dispensed with.

The PRESIDING OFFICER. Without objection, it is so ordered.

The amendment is as follows:

At page 288 between lines 22 and 23 insert the following:

"Sec. 542. Section 1141 (b) of the Act is further amended by

(1) striking out the period at the end of paragraph (5) and inserting in lieu thereof a semicolon and 'or'; and,

(2) adding at the end of paragraph (5) the following new subparagraph: '(6) in the case of a geothermal facility, the principal purpose of which is the generation of electrical power, the construction of electrical transmission lines, whether land or marine based, from the generating facility to the intertie with an existing transmission line.'"; and,

At page 288 at line 23, delete 'Sec. 542' and insert in lieu thereof 'Sec. 543' and renumber each succeeding section accordingly.

Mr. MATSUNAGA. Mr. President, this amendment is a very simple one. The Senator from Louisiana, the floor manager, and the Senator from New Mexico, I am sure, are familiar with this because they were at the committee meeting when this matter was discussed.

Very briefly, this amendment would provide the Department of Energy with specific authority under the geothermal loan guarantee program to insure that the loan guarantee program is available to cover the transmission lines that will be constructed from geothermal powerplants to intertie with existing transmission lines.

I believe the Senators will recall this. This is purely a clarifying amendment to what was agreed in committee, so it will not be misinterpreted.

Mr. JOHNSTON. Mr. President, we are happy to accept the amendment.

As the Senator from Hawaii says, we thought that this was clear in the original text adopted in committee. But, indeed, upon checking with it, it is not clear that we can have transmission from the geothermal source to the powerplant, as in Hawaii, where it is remote from the location.

What this amendment does is make very clear we can build those transmission lines in the situations that exist in Hawaii, where the geothermal source is some distance from the powerplant.

So we are happy to accept it. I appreciate the Senator's watchfulness in the language.

Mr. MATSUNAGA. I thank the Senator.

Mr. DOMENICI. Mr. President, we have no objection so long as it is understood we are only talking about the lines that are necessary.

We cannot have outside lines that are not necessary for the new source of the grid. That is the line we are talking about.

Mr. MATSUNAGA. That is definitely my understanding.

Mr. DOMENICI. We commend the Senator for the amendment and have no objection.

The PRESIDING OFFICER. The question is on agreeing to the amendment of the Senator from Hawaii.

The amendment (UP No. 743) was agreed to.

Mr. MATSUNAGA. Mr. President, I move to reconsider the vote by which the amendment was agreed to.

Mr. DOMENICI. I move to lay that motion on the table.

The motion to lay on the table was agreed to.

UP AMENDMENT NO. 742, AS MODIFIED

Mr. MATSUNAGA. Mr. President, we come back now to the earlier amendment which I offered. I ask unanimous consent that we may return to the consideration of the amendment.

The PRESIDING OFFICER. Without objection, it is so ordered.

Mr. MATSUNAGA. Mr. President, as I understand it, the floor manager on the majority side would be willing to accept the amendment with the modification he has suggested.

I am happy to accept the modification.

The PRESIDING OFFICER. Would the Senator send the modification to the desk?

He has a right to modify his amendment.

Mr. MATSUNAGA. Mr. President, I send the modification to the desk.

The PRESIDING OFFICER. The amendment will be stated.

The second assistant legislative clerk read as follows:

The modified amendment reads as follows:

At page 311 at line 17, delete '.' and insert in lieu thereof ', with a minimum of \$10,000,000 to be used for initiatives which may be useful in attaining energy self-sufficiency.'

Mr. JOHNSTON. Mr. President, this is the amendment just discussed. Simply, it makes clear that the \$10 million may be spent on a wide range of initiatives, from geothermal to OTEC to wind energy to solar energy—even to a wider than that, perhaps some biomass initiatives—which would be useful in attaining energy self-sufficiency.

I think it is a constructive amendment, and we are glad to accept it.

Mr. DOMENICI. Mr. President, we think it improves the bill. The modification speaks for itself. It is very clear as written. We have no objection.

The PRESIDING OFFICER. The question is on agreeing to the amendment, as modified.

The amendment, as modified, was agreed to.

Mr. DOMENICK. Mr. President, I move to reconsider the vote by which the amendment was agreed to.

Mr. MATSUNAGA. I move to lay that motion on the table.

The motion to lay on the table was agreed to.

UP AMENDMENT NO. 744

(Purpose: To provide certain technical amendments and clarifying language relating to the terms and conditions of the loan program contained in Title VII of S. 932)

Mr. MATSUNAGA. Mr. President, I send to the desk an unprinted amendment.

The PRESIDING OFFICER. The amendment will be stated.

The second assistant legislative clerk read as follows:

The Senator from Hawaii (Mr. Matsunaga) proposes an unprinted amendment numbered 744.

Mr. MATSUNAGA. Mr. President, I ask unanimous consent that reading of the amendment be dispensed with.

The PRESIDING OFFICER. Without objection, it is so ordered.

The amendment is as follows:

Page 318:

In Sec. 705(c) (2) (B), on line 12, insert after the word "system", the words "which, for the purposes of this subsection only, shall include any new transmission system which the Secretary determines is required to be constructed in order to connect the wind energy system into the electrical system,".

Page 318:

In Sec. 705(c) (2) (C), on line 21 after the word "paragraph", omit "(a) and (b) ;" and substitute in lieu thereof "(A) and (B) ;".

Page 318, following line 21:

In Sec. 705(c) (2), immediately after Sec. 705(c) (2) (C) and before Sec. 705(c) (3), add two new subsections as follows:

"(D) Loans shall mature 5 years after: the close of the fiscal year in which the Secretary determines that the annual capital, operation and maintenance costs of the wind energy system as determined in paragraphs (A) or (B) has become competitive with available conventional energy sources, as determined in paragraphs (A) or (B) ; or the close of fiscal year 1990, whichever comes first."

"(E) Each loan made pursuant to this section shall bear interest commencing on the first day of the fiscal year following the fiscal year in which the Secretary makes such determination that the wind energy system is competitive, said interest to be payable from that date until maturity at a rate determined by the Secretary to be equal to the interest obtainable on the commercial credit market by the debtor for investments in power production facilities. Such loans can be prepaid at any time without prepayment penalty and shall be contingent upon such other terms and conditions as may be prescribed by the Secretary hereunder."

In Sec. 705(d), on line 19, omit the word "Title" and substitute in lieu thereof the words "For the purposes of paragraphs (c) (3), (4) and (5), title".

Mr. MATSUNAGA. Mr. President, the purpose of this amendment is to provide certain technical amendments and clarifying language relating to the terms and conditions of the wind energy loan program contained in title VII.

With the world oil situation in such a volatile state, both with respect to prices and stability, we must do all that we can as a country to reduce our national dependence on oil. To accomplish this, we must look for other means to meet our country's energy needs. There is no

simple solution to the problem, but that does not mean we can afford to delay taking action right away.

Because many of the alternatives available to us as a country are still in the early stages of development—some still in the research and development phase—it is imperative that Congress take a leadership role in providing the necessary incentives to provide viable energy alternatives, particularly in helping to bring alternate energy from the research and development stage to the commercialization stage.

Wind energy holds great promise to meet our energy needs in the 1980's. Today, wind programs are still primarily in the research and development stage and the costs of these systems are not yet commercially competitive with conventional energy sources. However, all indications to date show that wind systems can soon become commercially feasible. Rather than do nothing and wait for this to happen, thus further delaying the commercialization of the wind program, we can take a positive step to bring this about at the earliest practicable date. Title VII provides the necessary economic incentive to make this possible.

Turning to the amendments themselves, the first two amendments are technical in nature, amending section 705(c)(2)(B) and (C). Added to section 705(c)(2)(B) is the same identical language which appears in section 705(c)(2)(A), relating to the Secretary of Energy's determination. Section 705(c)(2)(C) has been changed to correct a typographical error by capitalizing the references to sections 705(c)(2)(A) and (B).

Section 705(c)(2) is amended by adding clarifying language to cover the terms and conditions of the loan program referred to in section 705(c)(2). It is my understanding that these two new subsections were inadvertently left out of the original bill, S. 1844.

Subsection 705(c)(2)(D) and (E) add provisions inadvertently omitted, relating to the duration, rate and repayment of loans under the program. These provisions track generally similar provisions in title V, sections 512 and 513 relating to geothermal reservoir confirmation loans.

Subsection (D) relates to the maturity dates of the loans; subsection (E) contains provisions on the interest rates and repayment of interest.

Maturity of the loans is set at the earlier of 5 years after 1990 or 5 years after the year in which the system is commercially competitive with conventional energy sources.

Loans will bear interest at the discount or interest rate used at the time the loan is made for water resource planning projects under section 80 of the Water Resources Development Act of 1974 (42 U.S.C. 1962(d)-17(a)). The loans may be prepaid without penalty.

Summarizing these two amendments, subsections (D) and (E) contain necessary provisions on loan duration, interest rates and repayment that were inadvertently left out of the original bill, and generally track similar provisions in title V on geothermal loans.

The last amendment is a technical one to section 705(d) relating to title of the wind and energy systems. Since the question of conveyance of title does not apply to the loan program, section 705(d) has been amended to limit the application of the title conveyance section to section 705(c)(1), (2) and (3).

Finally, I would like to explain what is meant by several of the terms contained in title VII.

First, the definition of "cost effective" starting on line 17 of page 315 does not refer to the loan program set forth in section 705(c) (2). Rather, this definition relates primarily to Federal acquisitions of wind energy systems.

Second, the phrase "displacement for conventional fuels" set forth in section 705(c) (2) (A) on line 20 of page 317 is meant to cover that type of situation when the wind energy system replaces a conventional fuel oil fired system on a non-firm basis—in other words only when the wind is blowing—as contrasted to a base load generating system referred to in section 705(c) (2) (B).

Third, I would like to explain what is meant by the formula on lines 5 and 6 of page 318 of the bill that refer to "The annual cost of available conventional fuel." Here we are referring only to the cost of the fuel oil, for example, that would otherwise be used to provide a comparable amount of kilowatt hours of energy as the wind system. Since subsection (A) does not involve a wind system that is a substitute for baseload generation, we are only talking about the kilowatt hour cost of the fuel in this part of the formula and not the costs associated with capital or operation and maintenance expenses.

Fourth, I would like to explain how the cost differential is determined in section 705(c) (2) (C). As stated on page 215 of the committee report accompanying this bill. "The costs and differences which determine the maximum size of the loan should be completed on a cost per Btu basis" (cents per kilowatt hour).

Let me give an example.

Assume that the total costs associated with one wind machine in a wind energy system at the time of the loan are, say, \$5 million, and the total annual energy costs for that machine at the time are estimated to be, say, 7 cents per kilowatt hour. These costs would include capital, operation and maintenance, and also transmission costs if included by the Secretary of Energy. Assume also that the energy cost of the fuel oil component taken by itself, is say, 5 cents a kilowatt hour (which incidentally would be equivalent to approximately \$31.85 per barrel). To determine the amount of the loan, the kilowatt hour energy cost of fuel oil (5 cents) is subtracted from the equivalent kilowatt hour energy cost of the wind machine (7 cents) and the difference is divided by the kilowatt hour energy cost of the wind machine (7 cents). This ratio of $2/7$ represents the cost differential percentage of 28.6 percent. This percentage is then multiplied by the total dollar cost of the wind machine (\$5 million) resulting in a sum of \$1,428,591, which represents the amount of the loan for one machine under section 705(c) (2) (A). This figure (\$1,428,591) is then multiplied by the number of wind machines in the wind energy system, say, 10, to determine the total amount of the loan which would then be \$14,285,710.

Finally, I would like to explain what is involved in the Secretary of Energy's determination that the wind energy system is "competitive with available conventional energy sources." First of all "competitive" means that the total energy costs of the wind energy system is economically equivalent to the energy cost of say, fuel oil, which was used in the previous example. It should also be pointed out that the phrase "conventional energy" is modified by the word "available" to

insure that the determination of competitiveness of each loan is made on the basis of the cost of that particular wind energy system compared to the current average cost of all the conventional energy sources which are currently available to that entity. For example if an entity is using only fuel oil, and the energy cost of that fuel oil is equivalent to 8 cents per kilowatt hour, this is the figure that is used in determining the competitiveness of the two sources of energy and not the cost of some other source of conventional energy such as nuclear or coal at some other place in the country.

Mr. President, I have discussed this with the managers on both sides—at least, the staff has taken it up, I presume—and I understand that there may not be any objections to the amendment.

Mr. JOHNSTON. Mr. President, will the Senator yield for a question?

Mr. MATSUNAGA. I yield.

Mr. JOHNSTON. I see some language here which indicates that each loan, "pursuant to this section, shall bear interest commencing on the first day of the fiscal year following the fiscal year in which the Secretary makes such determination that the wind energy system is competitive."

Is that language still in the bill? If so, does it mean that the loan is interest-free until the wind energy is competitive?

Mr. MATSUNAGA. That is correct.

Rather than provide for grants, as we frequently do, it was believed that interest-free loans would be much more beneficial to the taxpayers as well.

Of course, this is an area in which grants would be appropriate. However, in talking with the business people who will be involved in this area, they prefer to have outright grants rather than interest-free loans. What I am proposing would be less of a burden to the taxpayer.

Mr. JOHNSTON. Mr. President, I would have to object to having an interest-free loan, certainly one that does not have a cap date.

For example, if it takes until 1990 for wind to become competitive, there would be perhaps as much as a 10-year interest-free loan. When that is applied to present inflation rates, it could mean that the Federal Government would pay in excess of 90 percent of the value of that loan. To pay 90 percent for a technology which is not competitive, which is not producing energy, I believe is going in the wrong direction.

I think we need to encourage wind energy, and indeed we do in the original bill. But that kind of massive subsidy, that kind of encouragement to technologies which have not yet matured, is not the proper direction to go, it seems to me.

I wonder whether the distinguished Senator would allow us to delete that subsection (E) dealing with those interest rates; so that in his amendment, we would maintain his first paragraph, dealing with transmission, keep subsection (D), dealing with the maturity of the loan, but eliminating subsection (E)—that is, eliminating on page 1 of his amendment, line 19 through the rest of the page and lines 1 through 9 on the second page.

Would the Senator agree to that?

What I am asking the Senator is simply to eliminate his subsection.

Mr. MATSUNAGA. I cannot agree with the Senator. Perhaps we can discuss this matter.

Mr. DOMENICI. Mr. President, we find section (E) unacceptable, because there could be periods when no interest would be charged; and under one scenario, they could get by and pay no interest ever.

We do not think that is what the Senator intended, so we hope he will modify it.

Mr. President, I suggest the absence of a quorum.

The PRESIDING OFFICER. The clerk will call the roll.

The second assistant legislative clerk proceeded to call the roll.

Mr. JOHNSTON. Mr. President, I ask unanimous consent that the clerk for the quorum call be rescinded.

The PRESIDING OFFICER. Without objections, it is so ordered.

UP AMENDMENT NO. 744 AS MODIFIED

Propose: To provide certain technical amendments and clarifying language relating to the terms and conditions of the loan program contained in Title II of S. 932)

Mr. MATSUNAGA. Mr. President, I send to the desk a modification to the amendment and ask for its immediate consideration.

The PRESIDING OFFICER. The amendment will be stated.

The legislative clerk read as follows:

The Senator from Hawaii (Mr. Matsunaga) proposes a modification to unnumbered amendment numbered 744.

Mr. MATSUNAGA. Mr. President, I ask unanimous consent that the reading of the amendment be dispensed with.

The PRESIDING OFFICER. Without objection, it is so ordered.

The amendment, as modified, is as follows:

Page 318:

In Sec. 705(c) (2) (B), on line 12, insert after the word "system", the words "which for the purposes of this subsection only, shall include any new transmission system which the Secretary determines is required to be constructed in order to connect the wind energy system into the electrical system,".

Page 318:

In Sec. 705(c) (2) (C), on line 21 after the word "paragraph", omit "(a) and (b)"; and substitute in lieu thereof "(A) and (B)";.

Page 318, following line 21:

In Sec. 705(c) (2), immediately after Sec. 705(c) (2) (C) and before Sec. 705(c) (3), add two new subsections as follows:

"(D) Each loan shall be for a term which the Secretary deems appropriate, but no loan shall exceed twenty years beyond the date the wind energy system is merged into the electrical system."

"(E) Each loan made pursuant to this section shall bear interest at the discount or interest rate used at the time the loan is made for water resource planning projects under section 80 of the Water Resources Development Act of 1974 (16 U.S.C. 1962(d)-17(a))." Such loan can be prepaid at any time without payment penalty and shall be contingent upon such other terms and conditions prescribed by the Secretary.

In Sec. 705(d), on line 19, omit the word "Title" and substitute in lieu thereof the words "For the purposes of paragraphs (c) (3), (4) and (5), title".

Mr. MATSUNAGA. Mr. President, during the brief quorum call we talked about this, and the modification, as I understand it, is now acceptable to both the majority and minority floor managers.

I call attention of the Senate to that initial section there which calls for insertion after the word "system" the words "which for the pur-

poses of this subsection only, shall include any new transmission system which the Secretary determines is required to be constructed in order to connect the wind energy system into the electrical system." . . .

This, of course, meets with the satisfaction of both managers and instead of the interest-free loan we have the standard low interest loan, just as we do now in existing law for water projects and other authorized projects. By agreeing to this modification, I would expect the Secretary of Energy to give favorable consideration to granting these loans for the full twenty year period authorized by the amendment. This would carry out our intent of promoting alternate energy programs such as the wind program.

Mr. JOHNSTON. Mr. President, the distinguished Senator from Hawaii has accurately stated the amendment. It does require that the loans bear interest at the rate in the water resources legislation, under which I believe the present rate is 7.8 percent or 7.25 percent or 7. something percent, and provides that it shall not rise, as I recall, more than a half percent a year.

This is the same kind of treatment which we have given to low head hydro and to geothermal, and I think it is appropriate, particularly when we consider that with the powerplants that use, for example, fossil fuels they can deduct from their income tax the amount of fuel used, which is a real help to those kind of fossil fuel plants. So a subsidy for wind energy of the difference between whatever the market rates are and the rates paid under this water resource bill is I think appropriate, and we are glad to accept it.

I congratulate the Senator from Hawaii for being the real champion not only of energy self-sufficiency but as well for wind energy.

Mr. MATSUNAGA. I thank the Senator from Louisiana.

Mr. DOMENICI. Mr. President, we have no objection. We think it is a warranted amendment and commend the Senator for offering it and urge its adoption.

Mr. MATSUNAGA. I thank the Senator from New Mexico.

The PRESIDING OFFICER. The question is on agreeing to the amendment, as modified, of the Senator from Hawaii.

The amendment was agreed to.

Mr. DOMENICI. Mr. President, I move to reconsider the vote by which the amendment was agreed to.

Mr. MATSUNAGA. Mr. President, I move to lay that motion on the table.

The motion to lay on the table was agreed to.

UP AMENDMENT NO. 741

The PRESIDING OFFICER. Who yields time?

Mr. DOMENICI. Mr. President, a parliamentary inquiry.

The PRESIDING OFFICER. The Senator will state it.

Mr. DOMENICI. Is not the amendment of Senator Robert C. Byrd now the pending business again?

The PRESIDING OFFICER. The Senator is correct.

Mr. DOMENICI. Mr. President, I suggest the absence of a quorum.

The PRESIDING OFFICER. The clerk will call the roll.

The second assistant legislative clerk proceeded to call the roll.

Mr. JOHNSTON. Mr. President, I ask unanimous consent that the order for the quorum call be rescinded.

The PRESIDING OFFICER (Mr. Bradley). Without objection, it is so ordered.

UP AMENDMENT NO. 745

Mr. LEVIN. Mr. President, first, I ask unanimous consent that the amendment of Senator Byrd be temporarily laid aside.

The PRESIDING OFFICER. Without objection, it is so ordered.

Mr. LEVIN. Mr. President, I send to the desk an unprinted amendment and ask for its immediate consideration.

The PRESIDING OFFICER. The clerk will report.

The assistant legislative clerk read as follows:

The Senator from Michigan (Mr. Levin) proposes an unprinted amendment numbered 745.

Mr. LEVIN. Mr. President, I ask unanimous consent that further reading of the amendment be dispensed with.

The PRESIDING OFFICER. Without objection, it is so ordered.

The amendment is as follows:

On page 82 add a new subsection 122(e) as follows:

Sec. 122(e) (1) Notwithstanding the provisions of subsection (c), if at the expiration of such time as the Corporation is permitted for submission of its comprehensive energy strategy to the Congress, the Corporation determines that an adequate basis of knowledge has not yet been developed upon which to formulate and implement a comprehensive energy strategy for the achievement of the goals of this Title, the Corporation shall report the reasons for such determination to the Congress, and may request such additional time up to one year as the Corporation considers necessary for the formulation of this proposed strategy.

(2) Such request shall be deemed approved after 30 calendar days of continuous session of the Congress have expired following the date of its submission, unless either House of Congress has, during such 30-day period, adopted a resolution disapproving such request pursuant to this section. If such request is disapproved pursuant to this subsection, the Corporation shall submit its proposed comprehensive energy strategy to the Congress within 90 days of such disapproval.

Mr. LEVIN. Mr. President, the Energy Committee amendment which we have adopted requires the Energy Security Corporation to submit to Congress its proposed comprehensive energy strategy within 5 years of the date of the enactment of the act.

This is, however, a possibility that the Corporation will not have accumulated adequate information at that point to formulate such a strategy.

In that event, Mr. President, this amendment would allow the Corporation to request from Congress an extension of time up to 1 year for submitting its proposed strategy if it determines that an adequate basis of knowledge has not yet been developed for formulating the strategy.

The request of the Corporation would be subject to one-House disapproval by the Congress. It would be deemed approved if not disapproved within 30 days. If the request was disapproved, the Corporation would be required to submit a strategy to Congress within 90 days.

Any extension beyond that mechanism, Mr. President, would have to come through amendment of this legislation by Congress.

I believe this amendment is acceptable to both managers.

I yield the floor.

Mr. JOHNSTON. Mr. President, this is a good amendment because it gives to the Corporation more flexibility if needed and more time if needed to put together the comprehensive strategy. I hope they will be able to come in with the comprehensive strategy with advice from Congress much sooner than contemplated by this amendment. But this does give an extra year of fail-safe time. And, frankly, if for some good and sufficient reason they cannot do it within this period of time, they can always request us and we, I am sure, would consent to additional time.

But this at least enshrines their flexibility in the statute. We are glad to accept this amendment. We want to thank the distinguished Senator from Michigan for his help, not only in this amendment but other amendments, which have helped make this bill a better bill.

Mr. DOMENICI. Mr. President, the minority has no objection. In fact, we commend the Senator. In a broader sense than merely the language of the amendment, it is obvious that the distinguished Senator is concerned because he has learned that it is going to be rather difficult for this country to assess, based upon the first go-around, the broad spectrum of synthetic fuels and its effect on our country, both on the positive and the negative side, and he is concerned that we want to make well-considered opinions with plenty of time. It is that that promotes the amendment, I am sure.

We think the additional year of flexibility is a good addition. We hope that they will be able to do so and to have their plan much ahead of the 5 years, but in case they need more time this is a good mechanism. We urge the adoption of the amendment.

Mr. LEVIN. Mr. President, I am very grateful to both floor managers, the majority and the minority, for their cooperation in this regard.

The PRESIDING OFFICER. The question is on agreeing to the amendment.

The amendment (UP No. 745) was agreed to.

Mr. DOMENICI. Mr. President, I move to reconsider the vote by which the amendment was agreed to.

Mr. LEVIN. Mr. President, I move to lay that motion on the table.

The motion to lay on the table was agreed to.

Mr. DOMENICI. Mr. President, a parliamentary inquiry.

The PRESIDING OFFICER. The Senator will state it.

Mr. DOMENICI. Is the amendment of the distinguished majority leader the pending business?

The PRESIDING OFFICER. The Senator is correct.

Mr. DOMENICI. I suggest the absence of a quorum.

The PRESIDING OFFICER. The clerk will call the roll.

The assistant legislative clerk proceeded to call the roll.

Mr. MOYNIHAN. Mr. President, I ask unanimous consent that the order for the quorum call be rescinded.

The PRESIDING OFFICER. Without objection, it is so ordered.

AMENDMENT NO. 572, AS MODIFIED

(Purpose: To determine the causes and effects of acid precipitation throughout the United States and to develop and implement solutions to this problem)

Mr. MOYNIHAN. Mr. President, I call up my amendment No. 572, modified, which is at the desk.

The PRESIDING OFFICER. Without objection, the pending amendment of the Senator from West Virginia will be laid aside once again. The amendment of the Senator from New York will be stated.

The assistant legislative clerk read as follows:

The Senator from New York (Mr. Moynihan) for himself and Mr. Baucus, Mr. Shen, Mr. Durenberger, Mr. Durkin, Mr. Heinz, Mr. Leahy, Mr. Metsenbaum, Mr. Nelson, Mr. Ribicoff, Mr. Schmitt, Mr. Warner, Mr. Welcker, Mr. Williams, Mr. Domenici, and Mr. Boschwitz, proposes amendment numbered 572, as modified.

Mr. MOYNIHAN. Mr. President, I ask unanimous consent that further reading of the amendment be dispensed with.

The PRESIDING OFFICER. Without objection, it is so ordered.

The amendment is as follows:

At the appropriate place insert the following:

SEC. . (a) STATEMENT OF FINDINGS AND PURPOSE; GENERAL DEFINITION.—(1) Congress finds that acid precipitation—

(A) contributes to the increasing levels of heavy metal concentrations in public reservoirs, water distribution systems, and waterways which often exceed recommended standards for human health;

(B) causes a retardation of a wide variety of forest growth;

(C) is responsible for the fact that hundreds of lakes no longer support life;

(D) is a growing concern in many areas of the country;

(E) may significantly reduce wildlife presence and productivity in both aquatic and terrestrial environments;

(F) damages natural ecosystems;

(G) is associated with the corrosion of metals caused by atmospheric sulfur pollutants, costing approximately \$7 per person in the United States in 1970;

(H) especially damages such materials as galvanized steel, nickel-plated steel, painted woodwork, antirust painted steel, limestone, and sandstone;

(I) apparently results from combinations of sulfur, nitrate, and chloride emissions in upwind locations which are often remote from the authority and control of affected States;

(J) comes from such diverse sources as auto exhausts, powerplants, home heating plants, and industrial processes;

(K) has increased in its areas of impact and effects as a result of increased fossil fuel combustion and may relate to certain regulatory pollution abatement efforts such as the increase of stack heights and the removal of particulates;

(L) will increase as alternative energy sources such as coal and synthetic fuels replace oil and natural gas in combustion;

(M) has long- and short-term effects that are not clearly understood or documented;

(N) is a serious problem in Europe, Canada, and the United States, where studies in these countries indicate that there are no simple or quick solutions to the acid precipitation problems;

(O) is an interstate and international problem that must be dealt with over vast airsheds encompassing many jurisdictional boundaries and requires interstate and international solutions; and

(P) is presently addressed by the Federal Government inadequately and in a manner lacking interagency coordination.

(2) The Congress declares that it shall be the policy of the United States to—

(A) identify the sources of acid precipitation;

(B) understand the airborne chemistry resulting in acid precipitation;

(C) determine the environmental, social, economic, and human impacts of acid precipitation;

(D) develop and implement a comprehensive plan to mitigate the harmful effects of acid precipitation in this Nation;

(E) utilize universities and other research and demonstration centers to encourage public participation in activities to influence the causes of acid precipitation and to rehabilitate affected areas; and

(F) to encourage State participation in solving acid precipitation problems.

(3) For purposes of this Act the term "acid precipitation" means the wet or dry deposition from the atmosphere of chemical compounds, usually in the form of rain or snow, having the potential to form an aqueous compound with a pH level lower than the level considered normal in natural conditions or lower than 5.6.

(b) **INTERAGENCY TASK FORCE AND COMPREHENSIVE PLAN.**—(1) There shall be formed an Acid Precipitation Task Force which shall consist of the Administrator of the Environmental Protection Agency as the head of the task force, and one representative each from the Department of the Interior, the Department of Health, Education, and Welfare, the Department of Energy, the Department of Commerce, the Department of Agriculture, the National Science Foundation, and the Tennessee Valley Authority. There shall also be an additional four members who are to be appointed by the President with the concurrence of the appropriate congressional committees, and who shall represent all regions of the United States.

(2) The members of the task force shall prepare a comprehensive plan of action (hereafter in this Act referred to as the "comprehensive plan"), which shall be a coordinated plan to ameliorate the harmful effects of acid precipitation by the end of the ten-year life of this Act by focusing the combined efforts of Federal agencies, State agencies, universities, other research entities and private and public corporations on this problem. In the preparation of the comprehensive plan the members of the task force shall review similar efforts such as the plan prepared by the President's Council on Environmental Quality.

(3) The comprehensive plan shall include but not be limited to programs for—

(A) establishing and operating a nationwide monitoring network similar to the Organisation for Economic Cooperation and Development (OECD) Programme on Long Range Transport of Air Pollutants employed in western Europe, which would cooperate with similar programs in Canada and Mexico;

(B) identifying and measuring the sources of acid precipitation;

(C) understanding the airborne chemistry responsible for acid precipitation;

(D) assessing the economic, social, human health, and environmental impacts of acid precipitation;

(E) developing recommendations to eliminate or reduce the adverse impacts of acid precipitation;

(F) effecting scientific and management interchanges and agreements with appropriate foreign governments and with public and private multinational organizations such as the OECD, which is currently recognised as an effective coordinator of European acid precipitation programs, and bilateral efforts between Canada and the United States on the transboundary air pollution problem;

(G) commenting on the adequacy of the provisions and funding levels authorized in this Act;

(H) documenting all current Federal activities related to acid precipitation efforts and recommending steps to assure that efforts which are compatible with the comprehensive plan are maintained;

(I) considering, evaluating, and, as appropriate, recommending both regulatory and nonregulatory solutions such as—

(i) economic sanctions against sources of acid precipitation including, but not limited to, compensatory payments to individual victims, governmental jurisdictions, corporations, businesses, and others who are harmed by such acid precipitation,

(ii) rehabilitation of habitats, buildings, and areas already harmed by acid precipitation,

(iii) adjusted pollution standards and regulations for proven sources of acid precipitation, and

(iv) alternative means of control of acid precipitation source areas where existing or adjusted uniform standards have contributed to such a problem;

(J) developing a methodology to assess the benefits and costs of alternate solutions to the problem, the cost effectiveness of recommended options vis-a-vis other options, and the social and institutional mechanisms available to implement recommended options;

(K) establishing performance evaluation standards for the recommended options;

(L) making recommendations as to the appropriate role of universities, public and private organizations and individuals to carry out the work set forth in the comprehensive plan through such action as—

offering courses, assistantships, fellowships, and scholarships for acid precipitation related subjects,
 developing centers and projects to demonstrate solutions or alternatives affected by acid precipitation,
 interpreting available research findings to groups who can use the information and
 establishing extension services to businesses, homemakers, corporations, owners, foresters, farmers, fishermen, and other affected groups to insure their participation in the overall program;
 describing a role for affected and contributing States to participate in the national effort to reduce acid precipitation and to rehabilitate affected areas involving those States to—
 coordinate current actions associated with acid precipitation,
 develop future programs to deal with acid precipitation,
 integrate current and future State actions with Federal efforts to attain the national goal, and
 develop counterparts to the task force where appropriate;
 recommending to the Congress potential Federal-State cost-sharing opportunities for worthwhile capital expenditures to control sources or rehabilitate areas;
 identifying State agencies that should be encouraged to develop and implement acid precipitation programs with funding authorized under this Act; and
 planning and coordinating programs and expertise in public and private institutions relevant to the solution of the acid precipitation problem.
 All of the subjects to be addressed in the comprehensive plan shall be based on the basis of our presently limited knowledge, and the fact that there may be insufficient data to make certain determinations at this time shall not be grounds for postponing the completion of the comprehensive plan by the deadline.
 The comprehensive plan shall be—
 the basis for determining goals and for determining who is to receive the funding authorized under this Act;
 the basis for establishing diplomatic initiatives and bilateral treaties with countries involved in acid precipitation programs;
 submitted to the Congress and for public review one year after the date of enactment of this Act. In the Senate it shall be submitted to the Committee on Environment and Public Works;
 available for public comment for a period of sixty days;
 revised if appropriate as a result of consideration of public comments;
 considered in final form, with respect to the first, second, and third year actions recommended, thirty days after the close of the public comment period.
 The task force shall convene as necessary during the period of eleven months which begins with the fiscal year in which the plan is submitted.
 The members of the task force shall be responsible for the implementation and coordination of the comprehensive plan after public and congressional review and modification.
 The task force shall submit to Congress, on the annual anniversary date of the submission of the comprehensive plan, an annual report which shall be submitted to the Senate Committee on Environment and Public Works and shall—
 summarize and evaluate, vis-a-vis the goals of this Act, all Government-sponsored acid precipitation activities to date;
 summarize and evaluate, vis-a-vis the goals of this Act, the expenditure of all funds authorized under this Act;
 summarize and evaluate, vis-a-vis the goals of this Act, and progress toward implementing the comprehensive plan and in reaching the national goal;
 document the results of the analysis of alternatives and performance of actions conducted pursuant to subparagraphs (J) and (K) of subsection (b) (3) of this section;
 maintain recommendations for additional funding needs where appropriate;
 maintain recommendations for cost-sharing capital expenditures with State governments to control sources or rehabilitate affected areas.
 The task force shall modify the comprehensive plan to reflect current conditions and performance evaluations of overall progress. Such a modified plan

shall be submitted to Congress and for public review and comment for a period of sixty days.

(c) **AUTHORIZATION OF APPROPRIATIONS.**—(1) For the purpose of establishing the task force and developing the comprehensive plan there are authorized to be appropriated \$1,000,000 for the first fiscal year beginning after the date of the enactment of this Act.

(2) For the purpose of carrying out the duties of the task force in each of the ten fiscal years following the fiscal year referred to in subsection (c) (1), there are authorized to be appropriated \$200,000 for each such fiscal year.

(3) For the purpose of implementing those provisions of the comprehensive plan which require Federal action under subparagraphs (A) through (K) of subsection (b) (3) of this section, there are authorized to be appropriated—

(A) \$1,000,000 for each of the first three fiscal years following the fiscal year described in subsection (c) (1);

(B) \$2,500,000 each year for the fourth and fifth fiscal years following the fiscal year referred to in subsection (c) (1);

(4) For the purpose of implementing those provisions of the comprehensive plan relating to the utilization of university and other research and demonstration centers, as described in subsection (2) (3) (L) of this section, including the making of grants to such entities, there are authorized to be appropriated—

(A) \$1,500,000 for each of the first four fiscal years following the fiscal year referred to in subsection (c) (1);

(B) \$2,000,000 each year for the fifth, sixth, and seventh fiscal years following the fiscal year referred to in subsection (c) (1);

(5) For the purpose of implementing those provisions of the comprehensive plan relating to the encouragement of State participation, as described in subparagraph (M) and (O) of subsection (b) (3) of this section, including the making of grants to States, there are authorized to be appropriated \$5,500,000 for each of the first six fiscal years following the fiscal year described in subsection (c) (1).

(6) All funds authorized under this Act shall be appropriated to the Environmental Protection Agency, which shall carry out the provisions of this Act, including the making of grants as authorized under subsections (c) (4) and (c) (5) of this section.

(7) The Administrator of the Environmental Protection Agency, after agreement by the members of the task force, may, beginning with the fourth fiscal year following the fiscal year referred to in subsection (c) (1), shift amounts authorized under one subsection of this section for use as provided under another such subsection if he determines, based upon research and rate of attainment goals under the comprehensive plan, that the funds would be more usefully applied if so shifted. No amount in excess of 15 per centum of the amount authorized for any fiscal year under any subsection may be so shifted, except that up to 25 per centum of the amount authorized for any fiscal year under any subsection may be so shifted by the Administrator if given approval by each of the chairmen of the committees of the House and Senate having jurisdiction over this Act.

Mr. MOYNIHAN. Mr. President, I rise today to offer as an amendment to the synthetic fuels legislation under discussion, a modified version of my bill S. 1754, the Acid Precipitation Act of 1979, now submitted as printed amendment No. 572. As many of you know, on September 11 of this year I first introduced this bill and it has since been gathering support. In virtually all respects this amendment is identical to my original bill. The two exceptions are that this amendment specifies funding levels slightly lower than in S. 1754 and expands membership on the task force to include regional representatives.

In the course of this debate that bears so directly on our energy future, I believe that it is particularly important that the problem of acid precipitation be addressed now, and I offer my bill as a vehicle for doing so.

Acid precipitation, formally defined as that of a pH of under 5.6 affects broad areas throughout the country, though its effects are most pronounced in the East. Sulfur and nitrogen compounds in the at-

vironment, much of it the result of fossil fuel combustion, chemically combines with moisture in the atmosphere to form acids. These substances travel long distances and finally fall to Earth in the form of rain or dry particulates. It is suspected that the acid rain problem in Europe is caused in part by pollutants from the east coast of this country which travel across the entire Atlantic before falling. We also know that emissions in certain parts of this country can result in acid rain several States away. In short, the phenomenon of acid precipitation extends far beyond borders and boundaries, be they between States or nations.

What are these environmental effects of acid precipitation? Although there is as yet a great degree of uncertainty associated with its effect, it is nonetheless clear that certain damage is attributable to this phenomenon. Perhaps the most well known effect is the gradual acidification of streams and lakes, eventually resulting in the death of fish populations. In the Adirondacks, the crystalline lakes in the uplands are dead, no longer sustaining plant or animal life; all has been poisoned, killed by acid rain.

Acid rain has other ill effects as well. It erodes marble and limestone buildings—even the columns of the Greek Parthenon and the flying buttresses of the Cathedral of Notre Dame in Paris. It eats at the metal in water and waste pipes—adding lead and other metals to our drinking water, with consequences to health not yet fully understood. Beyond this, it may also be responsible for a decline in crop and forest productivity.

And let me stress that not only the East is suffering from the harmful effects of acid rain. Similar problems plague the Boundary Waters Canoe Area in Minnesota, where granite bedrock and shallow soil cannot counteract the acid effects of the rain. Recent studies show that the problem is also evident in the Rockies. One map prepared by the Environmental Protection Agency indicates that well over half the country has local conditions that tend to either moderate or high sensitivity toward acid deposition.

Our knowledge of the exact nature and extent of these detrimental effects is uncertain and incomplete but it can be stated that the trends are already evident; acid precipitation is likely to increase and spread as our pattern of energy usage rests more heavily on high sulfur content fossil fuels. In most cases, future emissions are likely to have an even more devastating effect than do present emissions because natural buffers that neutralize the acid in the air, land, and waters are gradually being exhausted. Much like the suddenly high acid levels found each spring when the winter's acid snow melts en masse, this future acidity may well create effects strikingly worse than those we are now feeling. Already some sources predict that over 50,000 lakes in North America will become sterile, perhaps by the end of the decade. All of these trends are disturbing.

Today we are debating the nature of our energy future, and the extent to which synthetic fuels will play a part in that future. It is clear given our limited range of energy options and given our energy demand, that synthetic fuels will be a necessary and increasing source of energy in the coming years. I see this and I agree that such a synthetic effort should be undertaken.

Yet, while we plan our energy future, we must not forget the by-products of this new energy supply. Acid precipitation is in part caused by the combustion of fossil fuels. So, for that matter, is carbon dioxide, a separate but similar issue addressed by Senator Ribicoff and other of my colleagues. As we set this country on a path that will increase its dependence on fossil fuels—particularly those of higher sulfur content than the imported oil from which we seek to wrest ourselves—I say that it is appropriate at this time to look closely at the effects on such a step, and to increase our understanding of the consequences of our actions.

My amendment would do precisely this. It will establish a comprehensive and long-term effort to understand and solve the problems of acid rain, and in the interim will encourage short-term efforts to ameliorate the effects of the problem.

In outline, the amendment I am now proposing will provide the following:

It will establish a Federal Acid Precipitation Task Force composed of representatives of the Departments of the Interior; Energy; Health, Education, and Welfare; Commerce; Agriculture; the National Science Foundation; the Tennessee Valley Authority, and four persons appointed by the President to represent all regions of the Nation.

The task force will be chaired by the Administrator of the Environmental Protection Agency;

It directs this task force to develop a comprehensive plan to coordinate the efforts of Federal and State agencies, localities, university, other research and demonstration centers, and public and private corporations.

At the Federal level, the amendment proposes that the task force programs be designed to:

Understand the complex meteorological and chemical process involved in the acid rain phenomena;

Determine and document the effects of acid rain, and develop recommendations for the redressing of these effects;

Foster scientific and management interchanges and agreements with foreign governments and public and private multinational organizations;

Consider and recommend regulatory and nonregulatory solutions to the problem, which may include compensatory payments or effluent charges to industry, rehabilitation of affected areas, adjustment of pollution standards, and other emission control techniques.

At the State level, this legislation would:

Encourage Federal and State cost-sharing opportunities for the capital expenditures needed for controlling pollution sources and rehabilitating affected areas;

Authorize Federal funds for the States to implement such recommendations.

In addition, this legislation will authorize Federal funds to be allocated to universities and other research and demonstration centers to carry out activities set out for them by the Acid Precipitation Task Force. Such actions should include:

Developing course curricula on acid precipitation problems;

Establishing university centers to evaluate the effectiveness of proposed solutions to the acid rain problems; and

Establishing university extension services in local communities to involve local groups in the overall program set out by this legislation.

The Federal task force is also directed to assess the effectiveness of all its programs in meeting the overall objectives of the act. Each year a report will be submitted to Congress documenting the progress made to date toward finding solutions to the acid rain problem. While research is the emphasis in the early years of the act, implementation programs are given greater incentives in the later years of the act.

Listening to me, some of my distinguished colleagues may wonder of the need for this amendment, given the President's recent initiatives in acid precipitation research, as detailed in his environmental message of August 2. And indeed, I am not unaware of his effort. However, the program I propose here goes beyond that of the administration, in several ways. First, in adopting this amendment, the Congress would be establishing a Federal program that would continue for the 11-year life of the Acid Precipitation Task Force. This would be the case regardless of administration or the currents of environmental awareness. Then too, this legislation would provide additional funds for the study of this issue while the President merely reprograms some funds and arrives at a study of a smaller magnitude than this one. Importantly, much of the funding in my proposal is targeted for specific research efforts, including State and local programs and universities and other research and demonstration efforts.

Public and congressional scrutiny also plays a greater role under this proposal than under the President's policy. In the case of the program I advocate, the task force would formulate its recommendations, after study and analysis, and would then have the authority to implement them, subject to congressional and public review. Similar authority is not conveyed under the President's proposal.

It is clear that the difference between the two programs centers in the degree of concern, direction and serious long term study and resolution of this problem. I am offering more than a token effort, and I ask my colleagues to support me in this effort. For all the uncertainty involved, it is clear that the problem can only grow, and we are already overdue in our effort to understand it, and in the long term, to resolve it.

Mr. President, as the distinguished managers of this legislation know, this is a bill which has been referred to the Committee on Environment and Public Works. Along with a companion measure, which the distinguished senior Senator from Connecticut has already successfully introduced, we are proposing to add it to the present legislation because of the intimate relationship between the national enterprise to produce more energy and the simultaneous need to cope with environmental aspects of increasing energy use. These environmental consequences of energy use have reached the point of being profoundly troublesome.

The Senator from Connecticut has proposed an inquiry into the effects of increasing CO₂ atmospheric concentrations on the climate in the prospective future. This relates to the so-called greenhouse effect, which has absorbed scientists for the last 10 or 15 years. Increasing CO₂ levels are suspected to trigger climatic changes and the probable or at least the possible changes of much higher orders which simply have to be comprehended more than we do. We have learned to

measure these concentrations but have not learned to judge what will finally be their impact or how that impact might be offset.

Similarly, in recent years we have begun to notice the increasing acidity rain and the extraordinary effects which acid precipitation can bring about. It is this concern which prompts me and Senators Bancos, Cohen, Durenberger, Durkin, Heinz, Leahy, Metzenbaum, Nelson, Ribicoff, Schmitt, Warner, Weicker, Williams, Domenici, and Boschwitz to move this measure now.

I would note, Mr. President, that this is an aspect not only of national but of international concern.

This week the President will be visiting with the new Prime Minister of Canada. One of the principal topics of discussion between them will be acid rain.

There are industrial parts of the world where rain has fallen with the acidity of vinegar. Even more striking than this is that this is an environmental effect that can be felt oftentimes tens of thousands of miles from its source. The simple fact is that the chemical aftermath of combustion of fossil fuels is carried high into the air and thence by winds to distant parts of the globe. Rain carries these acids to the ground, and with it a variety of harmful environmental consequences.

In the Adirondacks, particularly in areas of higher altitudes in the northern part of my State, most of the lakes have, in effect, been "killed." One of the great natural resources and wonders, if you will, of the Northeastern United States are the high lakes of the Adirondack Mountains. Almost a century ago the State of New York bought up these areas and declared them to be a forest preserve which our State constitution says shall be kept forevermore—it is unbelievably difficult to try to straighten out a road in a forest preserve; you need a constitutional amendment to cut down a tree. This designation of the Adirondacks as a forest preserve was the first great environmental protection event in the history of the United States. The idea of wilderness, the idea that has made the national parks what they are, the idea of wild rivers and such as that—all this began with the effort in the Adirondacks, the effort that would insure that they would be untouched by modernization and by economic exploitation. They would remain a wilderness for men on foot, on horseback, or in canoes, to enjoy. Yet 80 years later we looked up and found the lakes to be dead, killed by chemicals from other countries and other States.

Mr. President, this particular problem is a scientific inquiry for which a solution can be expected, that the application of resources will bring answers. The answers may be that there is nothing that can be done, though that is unlikely. In any event, the application of resources will produce results, and it is time we began doing so. The resources involved are paltry. The sums of money are a few million dollars each year for the next decade, but it could be the beginning of a data base and of a technological understanding of the meteorological, hydrological, and ecological aspects of the acid rain phenomenon.

Mr. JOHNSTON. I wonder if the Senator will yield for me to say that I think his amendment is an excellent one. Acid rain is a phenomenon that we know very little about, except that the consequences of acid rain are very serious and we must find out about it. This study is to be operated within the Environmental Protection Agency and I think it is very appropriate for that purpose.

We are glad to accept the amendment and congratulate the Senator and his cosponsors for their leadership in bringing this to our attention and making it part of this bill.

Mr. SCHMITT. Will the Senator yield further?

Mr. MOYNIHAN. I am happy to yield to my friend, of whom I often have occasion to say that, since Thomas Jefferson presided, he is the first scientist to be in the U.S. Senate.

Mr. SCHMITT. The Senator is, once again, very kind and his kindness is appreciated.

Mr. President, the minority joins with the Senator from Louisiana in his enthusiastic acceptance of this amendment.

I am a cosponsor of this amendment. I can only add to the very appropriate remarks of the Senator from New York that what he said is true: If we can just define the problem, we can more than likely find a solution or at least understand better the consequences of not finding a solution or not searching or being willing to pay for such a solution.

As a geologist, I can say, I think, with $4\frac{1}{2}$ billion years of time to back me up, that the Earth is a very resilient place. Unbelievably catastrophic things have happened to this place, either very quickly or over periods of time. Vast populations of species have died out because of it.

We need to understand better whether mankind has reached that point where it can overcome the resilience that the Earth has shown in the past. If we overcome it by an excessive pollution of our atmosphere, lower as well as upper, we must be willing to pay for those consequences. I believe, on the other hand, that once we fully understand this problem, we shall be willing to pay the price or find the alternatives that will eliminate them.

The sulfur, nitrates—we know pretty much what the elements are that are causing the problem. The question is, are we going to develop the technologies and allocate the resources to eliminate those products at their source before they reach the atmosphere, before they become products that can go into solution in the rain?

The Senator, having brought this to everyone's attention, certainly should be complimented. I support him completely, as does the minority of the committee.

Mr. MOYNIHAN. I thank my friend from New Mexico. I thank him for confirming, in as courteous a way as he thought he could do that this kind of problem will respond to inquiry and that the Senate is proposing to learn something about the subject before it mandates solutions.

It will be possible to make profoundly gross mistakes here if we do not do some research first, mistakes that would cost billions. It may be that countermeasures here, buffering measures here, as yet unimagined, will turn out to be just the trick we need. This is work for good brains, given a certain amount of resources and a certain amount of time.

I see the Senator from Pennsylvania is on the floor. He is a cosponsor, my neighbor and friend. I hope that he would like to speak to this matter.

Mr. HEINZ. The Senator is correct in his observation and his surmise; I thank the Senator for yielding.

Mr. MOYNIHAN. I am happy to yield.

Mr. JOHNSTON. Mr. President, I hope we can pass this amendment that has been accepted on both sides. We have to finish this whole bill by midnight tonight and I am afraid it will take every minute of that.

Mr. HEINZ. Mr. President, I shall be brief.

I rise in support, very strong support, of the amendment offered by Senator Moynihan, of which amendment I am a cosponsor. I commend him for his leadership on this issue. He was the first to introduce substantive legislation in this body, a very comprehensive bill, I had the privilege to work with him and his staff to make a few very modest suggestions, which have been incorporated into this amendment.

**SYNFUELS PROGRAM NOT COMPLETE WITHOUT FUNDING TO COMBAT
PROBLEM OF ACID RAIN**

Mr. President, as the Senate considers the synthetic fuels bill, I cannot overemphasize the importance of including in this measure a program to deal with the growing threat to plant and aquatic life, farmland, property, and human health posed by acid rain. As you may be aware, acid rain is the result of emissions of nitrogen and sulfur dioxide which combine with water molecules to form two of the most corrosive substances known to man: Nitric acid and sulfuric acid. In turn, this acid rain retards forest growth, damages crops and cropland, renders lakes and rivers sterile by acidification, deposits toxic metals in water supplies, and corrodes buildings and automobile paint. Acid rain is borne at such high altitudes that much of the Scandinavian rain problem comes from other Western European nations and even from North America. Similarly, Canada receives three times as much sulfur dioxide from the United States as it sends back.

Because of the national commitment to energy independence—a commitment necessitating greater coal utilization and a demonstration program of synfuels development—the phenomenon of acid rain is likely to worsen without some form of decisive action to deal with a problem that respects no State or national boundaries. The synfuels development program would thus seem to be a logical place to include a program of acid rain research and demonstration projects which I have previously cosponsored in the form of a bill, S. 1754, along with my distinguished colleague from New York, Senator Moynihan.

Briefly, this program would:

First. Establish a Federal Acid Precipitation Task Force chaired by the Administrator of EPA and composed of representatives from the Departments of Agriculture; Commerce; Health, Education, and Welfare; and Interior; from the National Science Foundation and the Tennessee Valley Authority, and from the various regions of the country.

Second. Direct the task force to develop a plan to coordinate the efforts of Federal and State agencies, localities, universities, and research and demonstration centers, and public and private corporations; and

Third. Authorize \$125 million to be spent by the Federal Government over the next 11 years.

This amendment is also extremely timely in view of an international conference on acid rain held in Toronto on November 1, 2, and 3 which

attracted more than 700 scientists, government officials, industrialists, and environmentalists from Canada, the United States, and Europe. In fact, this conference provided the impetus for the excellent New York Times article of November 6 documenting what is known about the hazards of acid rain and what remains to be discovered.

My interest in the problem of acid rain was first sparked by scientific reports establishing that Pennsylvania is in the "eye of the acid rain storm." In fact, samples taken during the past year at the Northeastern Forest Experimental Station at Kane, Pa., have recorded on a continuing basis some of the most potent acid precipitation anywhere in the United States and possibly in the world. Since that time, I have encountered numerous other reports documenting the effects of acid rain—effects so severe that Sweden and Norway are considering taking the issue before the World Court to try to collect damages from other countries, and Mexico and Canada would like to negotiate treaties with the United States to deal with the problem. Therefore, last month I testified before the National Commission on Air Quality about the growing threat posed by acid rain and urged passage of S. 1754. I ask unanimous consent that a copy of my testimony before the Commission be printed in the Record at the conclusion of my remarks.

The PRESIDING OFFICER. Without objection, it is so ordered.

(See exhibit 1.)

Mr. HEINZ. Mr. President, in short, I feel that the Senate would be remiss if it were to enact a synfuels development program without also including provisions to deal with the environmental problems which such a program would exacerbate. I urge my colleagues to join me in supporting this measure.

Mr. President, this amendment addresses an extremely timely problem and like somethings, now is the time to address a problem of modest seriousness before it becomes a very serious problem that is much more costly to address. I urge my colleagues to accept the amendment.

EXHIBIT 1

STATEMENT OF SENATOR JOHN HEINZ, NATIONAL COMMISSION ON AIR QUALITY MEETING ON ACID PRECIPITATION, OCTOBER 5, 1979

Mr. Chairman, I am most grateful for this opportunity to appear today before the National Commission on Air Quality as it investigates the problem of acid rain. I shall not occupy too much of the Commission's time as I understand you have several expert witnesses appearing before you today and I have pressing business at the Finance Committee. I would, however, like to take a few minutes to express my concern about the acid rain problem and offer a few suggestions for its resolution.

As you know, my interest in environmental issues is a longstanding one, dating back to my days in the House of Representatives when I helped organize the Environmental Study Conference and was one of the principal authors of the Clean Air Act Amendments. I am particularly interested in the topic of your meeting today because whatever solution the Commission and others now studying the acid rain problem ultimately produce will have a significant effect in the state which I represent, Pennsylvania.

First, although much remains to be discovered about the causes and potentially harmful effects of acid rain, preliminary investigation has established that Pennsylvania is in the "eye of the acid rain storm." According to an article in a recent issue of Pennsylvania Forests, which I am asking be inserted in the Record, samples taken during the past year at the Northeastern Forest Experimental Station at Kane, Pennsylvania, have recorded on a continuing basis some of the most potent acid precipitation anywhere in the United States and possibly

in the world. As evidence of the mounting concern in my state about acid rain, at a recent meeting of conservation groups in Pittsburgh which I convened to discuss the issues of Alaska lands and RARE II wilderness areas in the Allegheny National Forest, several spokesmen for environmental groups wanted to know what Congress intended to do about the acid rain problem. And just last week, the Philadelphia Inquirer ran a front-page article on the growing threat posed by acid rain.

Not only is Pennsylvania disproportionately affected by acid rain, some of its key industries such as coal and steel may well be called upon to bear the brunt of whatever solution to the acid rain problem that the Commission and others studying the problem may propose. As part of the national goal of energy independence, of which I am in full support, the nation's output of coal is to be doubled by 1965 to replace imported oil and scarce natural gas reserves, and air quality standards may be eased. Yet frequently cited as a cause of acid rain are particles of sulfur dioxide produced mainly by power generating plants and large industrial smelters—which use the coal so abundant in Pennsylvania and other states and so necessary if the dependence on imported oil now crippling the nation's economy is to be reduced. I am thus concerned that in the process of attaining energy independence, the health of our people and the productivity of our forest, agricultural, and water resources are not sacrificed. At the same time, I would hope that in attaining the equally worthy goals of air quality and reduced acid rain, we do not place an unreasonable burden on those industries whose continued vitality is crucial to meeting the nation's energy needs.

I shall not dwell at length on the effects of acid rain, leaving such a discussion to the expert witnesses from whom you will be hearing today. Suffice it to say that the reports I have seen, several of which I am inserting into the hearing record for the benefit of Commission members and staff, have established the following:

Scandinavian studies have demonstrated decreased forest growth in areas of acid rain. This phenomenon has been documented to a lesser extent in the Northeastern United States.

Farmers find themselves forced to counteract the effects of acid rain by adding fertilizer to replace nutrients leached from the soil and lime to neutralize acid. A strong acid rain can result in holes in lettuce, spots on tomatoes, damage to leaves, and retardation of plant growth.

Acidification of lakes and rivers can render them sterile. Not only does acidity adversely affect the reproductive capability of adult fish and the survivability of eggs and young fish, a sudden acid-laden snow melt may kill thousands of fish in a single day by acid shock or aluminum poisoning. In Scandinavia, there are already 15,000 fishless lakes. In Canada, scientists fear that as many as 50,000 lakes may become sterile over the next two decades. And in the Adirondack Mountains of New York, over 300 lakes are now sterile.

The quality of drinking water is harmed by acid rain as it deposits toxic metals into reservoirs, leaches metals out of the soil and into the water table, and picks up metal from pipes. Last year Dr. William E. Sharpe at Pennsylvania State University studied drinking water in Clarion, Pennsylvania, where residents depend on cisterns for drinking water. In several instances drinking water exhibited dangerously high levels of lead. Snow in the area showed high levels of lead and cadmium, both of which are toxic in sufficient quantities. "And those were just the ones we checked for," observed Dr. Sharpe. "There could have been other things—arsenic, mercury . . . we didn't check for those."

Acid rain has a corrosive effect on buildings and automobile paint. In fact, during the same week that the highest acid precipitation rate yet observed was recorded at Kane, Pennsylvania, over 200 cars in the Harrisburg area alone received damage to painted surfaces from acid dew. Even nylon stockings deteriorate more rapidly from acid rain.

Ironically, efforts to meet air quality standards by building taller smokestacks have contributed to the acid rain problem and spread it across vast distances. As a result, acid rain in Europe is borne by Atlantic air currents from North America. In fact, Norway and Sweden are considering taking the issue before the World Court to try to collect damages from other nations. Similarly, Canada receives three times as much sulfur dioxide from the United States as it sends back and therefore wants to negotiate an air pollution treaty with the United States. And here in the U.S., evidence suggests that much of the acid rain problem in the Northeastern states originates in the Midwest.

Because of the scope of the acid rain problem—and the fact that it respects no state or national boundaries—a nationwide research effort is needed to determine the origins of acid rain, identify its hazardous effects, and suggest solutions. In recommending such an effort I do not intend to denigrate the ongoing research of the Acid Precipitation Experiment (APEX); the National Atmospheric Deposition Program (NADP) at the Department of Agriculture; the Multistate Atmospheric Power Production Pollution Study (MAP3S) at EPA; and the Sulfate Regional Experiment (SURE) sponsored by the Electric Power Research Institute (EPRI).

However, I feel that a more comprehensive approach is warranted. In his 1979 Environmental Program President Carter has proposed a ten-year Acid Rain Assessment program, an approach whose concept I support. That is why I am cosponsoring, along with my distinguished colleague from New York, Senator Moynihan, S. 1754, the Acid Precipitation Act of 1979. This bill would, among other things, do the following:

(1) Establish a Federal Acid Precipitation Task Force chaired by the Administrator of EPA and composed of representatives from the Departments of Agriculture, Commerce, Health, Education, and Welfare, and Interior, and from the National Science Foundation and the Tennessee Valley Authority.

(2) Direct the Task Force to develop a plan to coordinate the efforts of federal and state agencies, localities, universities and other research and demonstration centers, and public and private corporations.

(3) Authorize \$152 million to be spent by the federal government over the next eleven years.

There are some modifications to the measure, however, which I would like the Environment and Public Works Committee to consider. First, I am concerned about the cost of the program and would want assurances that its work would not duplicate the ongoing research efforts which I cited previously. Second, there exists a more serious omission in the bill as introduced which is that representatives of state governments which will be called upon to implement the recommendations of the Task Force are not included among its membership. Similarly, I feel that the Task Force should include representatives of industries likely to be affected by its findings. Third, I would like to direct the Task Force to seek solutions to the acid rain problem which do not place an unreasonable burden on those industries whose continued vitality is crucial to meeting the nation's energy needs. The provision in S. 1754 for capital grants to states is a step in this direction.

More importantly, in calling for this long-term research effort I do not mean to suggest that there are not immediate steps which can be taken to reduce the environmental and health hazards posed by acid rain. Although additional scientific research is needed to demonstrate conclusively the causes and effects of acid rain, any reasonable man—or woman—can infer on the basis of evidence already available that:

(1) acid rain has harmful effects on plant and aquatic life, farmland, property, and human health; and

(2) the primary source of acid rain is emissions of sulfur and nitrogen from such sources as fossil fuel burning power plants.

I therefore suggest that the following steps be taken to alleviate the effects of acid rain:

First, the use of stopgap measures such as liming of acidified lakes to reduce the immediate hazards of acid rain while long-term solutions are being devised;

Second, a ban on further construction of tall stacks which heretofore have been used by many air pollution sources to comply with clean air standards;

Third, economic feasibility studies of retrofitting existing tall stacks and other pollutant sources with scrubbers;

Fourth, requiring that new power plants and other contributors to the acid rain problem not be sited where they will exacerbate the acid rain problem; and

Fifth, including funding in the national energy program of increased coal utilization and synthetic fuels development for emissions control equipment and other programs to combat acid rain.

In conclusion, I hope that this meeting of the Commission and proposals such as I have outlined today will help draw further attention to the problem of acid rain and expedite the development of much-needed solutions. I hope that the Commission has found my remarks today enlightening in this respect.

ACID RAIN ON PENNSYLVANIA FORESTS, WATERS

(By Larry J. Schweiger)

A young tree planter clad in blue jeans and cotton plaid shirt bends over a newly created hole in the ground. With the last of many White Pine transplants to be set into the soil this spring day, his hands spread the fine root system throughout the hole. While carefully pressing excavated soil back around the roots, sticky clay particles cling to his hands.

Completing the task, he unconsciously rolls the clay globe into a ribbon and looks over the day's work. Scattered throughout this clearcut can be seen small but ubiquitous mixed pine seedlings midst downed tree tops. He ponders about future fruits of his effort, knowing full well these seedlings must fend against a myriad of natural enemies including insects, wildlife and forest fires.

Their future unfortunately, will be out of the planter's control and increasingly threatened. For on top of a number of natural enemies to tree seedlings, modern civilization is stacking many more insidious threats. One very critical to the future forest is acid rain from air pollution.

Worldwide concern has been growing in recent years about forest productivity that may be reduced by far away air pollution emissions. The rate of forest growth has declined in Southern Scandinavia and in the Northeastern United States between 1960 and 1970. Documentation of the cause of the decline is lacking, but acid precipitation is increasingly suspect.

Numerous laboratory experiments have shown that acid rain can damage leaves; alter trees responses to both beneficial and disease causing organisms; affect the germination of conifer seeds and interfere with the establishment of seedlings; affect the availability of needed nitrogen and potassium in the soil; decrease soil respiration; and increase leaching of nutrient ions from the soil.

A report entitled: "Environmental Effects of Increased Coal Utilization," by the Environmental Protection Agency, cites the above laboratory results but warns: "It has not yet been possible to demonstrate unambiguously decreased tree growth in the field." But in all probability, it is happening now.

Pennsylvania appears to be in the eye of the acid rain storm. Samples taken at the Northeastern Forest Experimental Station during the past year show its station at Kane to be recording on a continuous basis some of the most potent acid precipitation anywhere in the United States and possibly in the world.

Deblit station in the Netherlands had a pH of 3.78 as a yearly weighted average in 1966-67 which is considered the highest acid precipitation rate in the world. The lowest pH reading at Kane occurred on the nineteenth of September of 1969 when a sample collected show a pH reading of 2.32. During the same week over 200 cars in the Harrisburg area alone, received damage to painted surfaces from acid dew.

In a statement before the Environmental Quality Board on January 1970, Ralph Abele the Executive Director of the Fish Commission said, "As more data are received on this subject, it becomes clear that Pennsylvania is now a full partner with the problem of acid precipitation which was first observed in Scandinavia and in upper New York State.

Maps developed by researchers indicate that large areas of Pennsylvania are receiving the brunt of the acid precipitation in the eastern United States. The evidence seems to indicate that this may be the result of long-distance transport of pollutants from the midwestern industrial centers. In all probability, the problem has been intensified by states to the west of us allowing the construction of tall stacks without the use of scrubbers which would eliminate the source of much of the acid rain.

pH isopleths from 1955-56 to 1972-73 in the northeastern portion of the United States indicate the average annual pH has been decreasing steadily. The most recent data shows that this trend is continuing. In response to this problem, several networks of acid rain stations are being formed in the United States and more stations should be considered.

A thorough study of existing information and data has already caused the President's Council on Environmental Quality to call acid precipitation one of the two most critical environmental problems. (The other is the buildup of atmospheric carbon dioxide with its long-term potential for profound climatic alteration. Atmospheric carbon dioxide has increased 12% since 1850.)

An acid rain report prepared by the National Atmospheric Deposition Program to the Council on Environmental Quality states: "The increasing acidity

of precipitation has already caused measurable damage to aquatic ecosystems and has the potential for longer-term injury over decades to forest systems.

"It can severely impoverish sensitive soils and degrade the natural ecosystem so important to human welfare. The continuing, unchecked environmental degradation caused by acid precipitation could reach a stage where the damage to natural ecosystems would be irreversible."

There basically appears to be four forces in eastern United States to cause acid rainfall increases:

1. Increased consumption of high sulfur fuels to solve the energy crisis.—Pennsylvania, for example, has increased coal production by 23 million tons since 1961. Between 1960 and 1980, nationwide sulphur oxide emissions to the atmosphere will have nearly doubled. SO_x emissions amounted to twenty-three million tons in 1960, thirty-three million tons in 1970 and estimates indicate emissions will reach forty-one million tons by 1980.

2. Increasing acid loads from the automobile.—Gasoline contains small quantities of thiophene which is an organosulfur compound. Thiophene is oxidized through combustion to form sulphur dioxide in the automobile engine. In new autos equipped with catalytic converters, some of the SO_x may be converted to SO₂, which readily reacts with water vapor in the exhaust system to form H₂SO₄, or sulfuric acid.

Small quantities of acid then are emitted from the converter as acid aerosol. Despite this fact, the Environmental Protection Agency after study recommends that no automotive devices be added or altered to curb the sulfur related emissions primarily because this source is thought to be "minor".

3. Loss of buffering potential from fly ash reductions.—Fly ash is neutral to slightly basic in nature and has a tendency to act as a buffer against acids. The struggle to meet established air quality standards has been much more successful in the area of controlling particulates than that to control sulfates.

Electrostatic precipitators have been the primary device for controlling fly ash from coal burning power plants. First used in 1923, precipitators were increasingly applied to control particulates through the fifties and sixties. Today, the average particulate removal efficiency is 99.5%.

On the other hand, sulfur controls are moving much slower. As of May of 1978, only thirty-six scrubber-equipped-coal-fired plants were in operation nationwide, representing less than 5% of all coal generation. It has been estimated that only one hundred and thirty-eight flue gas scrubber-equipped-coal-fired utilities will be operational by 1983.

Additionally, a recent inter-agency study on Ecological Effects of Increased Coal Utilization concluded that this trend will continue over the next twenty years as sulfur oxide emissions will increase 25% over 1975 levels by the year 2000 while the particulates will continue to be reduced to about 80% of the 1975 levels.

Since fly ash is known to have buffering effect on rainfall pH, the contention is made by many experts that high particulate loading from the combustion of coal in the past could have caused a buffering of acids. A study of Lichen and Borman of Cornell University for example, conclude that the installation of particle removing devices eliminates these alkaline substances consequently permitting appreciable quantities of SO_x to be converted to free acid. Free acid is now believed by some to account for up to 80-100% of total acid.

4. The role of nitrogen oxide in the formation of acid is believed to be on the increase in eastern United States.—Nitrogen oxides are favored during high temperature combustion and come from atmospheric nitrogen that becomes part of combustion air. (Nitrogen makes up 78% of the atmosphere.)

In the past, nitrogen oxides play a larger role in the formation of western acids but have played a much smaller role in the formation of those in the east. However, NO_x is currently believed to be increasing from 22% of the total to 30% of the total acid load.

With the National energy goal of double coal output by 1985 to replace imported oil and scarce natural gas reserves, we can only expect short and long-term impacts of acid rain to become more damaging to sensitive forest and water ecosystems. Further softening of air quality standards also appears imminent.

The Environmental Protection Agency is under pressure from many forces, and is proposing to relax air pollution standards for new coal fired plants by shifting from full to partial scrubbing on a sliding scale of 70-90% depending on sulfur content of coal consumed. The scale will be based upon meeting the ceiling of 1.2 pounds of sulfur per million Btu's.

This proposal is in violation of the 1977 Clean Air Act amendments which mandate the Environmental Protection Agency to require "best available control technology" (full scrubbing) on new facilities. According to estimates, this move may reduce future electric bills by an average of fifty-five cents per month. But the costs will be passed along to the owners of forest lands in terms of damage to natural reproductivity.

Thus, acid rain has already become a destructive intruder into Pennsylvania's forests, frustrating the young tree planter and forest land manager alike. Over the past seventy years, foresters have made great strides in the direction of better forest resource management. It now appears that this work might be severely marred by forces largely out of the hands of those responsible for the resource.

There are however, many things that foresters can do to help win the battle against forest damages caused by acid deposition. The forest industry should support research projects to determine the long-term impacts and costs of acid on various soils and tree species. Foresters may also be helpful by supporting the various environmental group's efforts to prevent relaxation of air quality standards.

This Nation needs to minimize the dependence on foreign sources of energy. But in pursuit of that goal, we must also minimize the environmental damage caused by air pollution.

In the short-term, it might appear wise to relax air quality standards to burn more coal. In the long pull however, coal's future will largely depend on our ability to clean it to acceptable levels.

In 1976, Dr. Lichens of Cornell University suggested that desulfurization was the only realistic and viable alternative to minimizing the sulfur oxide problem. He estimated that the United States could cut sulfur emissions in half by spending four billion dollars in control measures.

Other researchers indicate the cost can further be reduced by the generation of "producer gas" from coal and by further "fine tuning" the combustion process to minimize emissions.

A study by Dr. Cooper in 1976, envisioned a system of sulfur recovery which included transporting sulfur wastes to western agricultural areas to supplement sulfur deficient soils thus increasing soil productivity and turning a liability into an asset.

The United States vitally needs coal-produced energy! However, we do not need energy at the sacrifice of paper, wood, food, fish and wildlife resources or environmental quality. With careful management and planning, we can have sufficient energy and a healthy environment at the same time.

[From the Philadelphia Inquirer, Sept. 12, 1979]

EPA SEES DANGER OF "ACID RAIN" RISING DAILY

(By David Hess)

WASHINGTON.—Evidence is mounting that the smokestacks of the Midwest are endangering the health and property of millions of Americans and Canadians in the northeastern quarter of the continent.

Environmental Protection Agency (EPA) scientists, although admittedly far from reaching definite conclusions on the extent of the danger, say that the threat is rising daily. It will get "a helluva lot worse before it gets better," one scientist said.

They have a shorthand description of the threat: "acid rain."

EPA researchers believe that it is contaminating public drinking water supplies, reducing some farm crops and damaging certain forests, especially deciduous hardwoods.

Here's what happens:

Sulfur-laden smoke, laced with nitrogen oxides, plumes skyward from thousands of coal-fired boilers in Ohio, Indiana, western Pennsylvania and other Great Lakes states.

Wafting at high altitudes, the plumes bear north by northeast, impairing visibility and mixing slowly with clouds.

Combined with moisture, the sulfur and nitrogen oxides capture the hydrogen atoms in the water. When atmospheric conditions are right, they plummet to

earth as rain or dust in Canada, in the Adirondack and Allegheny mountains and New England.

And what goes up as smoke is not the same as what comes down as rain and sleet. The bond between the hydrogen and sulfur-nitrogen oxides forms two of the most corrosive substances known to man, sulfuric and nitric acids.

Over the last few years, the northeastern United States and vast tracts of western Canada have been bathed increasingly by these acid rains.

Lately, hundreds of mountain lakes in New York, Pennsylvania and New England have been "killed" by the acidic downpour, and no longer can support any other aquatic life. In Canada, thousands of pristine lakes have been simply destroyed.

EPA scientists also have found evidence that acidic contamination of lakes and streams increases the amount of dangerous heavy metals such as mercury and aluminum by suspension. This poses a serious threat to some drinking water supplies.

Acidic contamination of water supplies has corroded the pipes of some public water systems in upstate New York, the EPA says, causing harmful metal particles to flake off into drinking water.

"The long-term effects of this contamination could be horrendous," said EPA deputy administrator Barbara Blum.

EPA officials say the exact extent and severity of the pollution has not been established.

In Pennsylvania, the Department of Environmental Resources has brought suit against the EPA for allowing two power plants in West Virginia to burn high-sulfur coal, arguing that its use will worsen the acid rain problem in Pennsylvania.

"The Pennsylvania Fish Commission has been studying streams throughout the State and found that the water in them is becoming more acidic, as a result of acid rain," said David Milne, spokesman for the Department of Environmental Resources.

"Farmers have been finding that their soil is more acidic, so they have to lime it, and it has an effect on automobile paint and buildings, and even causes iron stockings to deteriorate."

EPA is mounting a \$5 million research program, starting Oct. 1, to begin a systematic collection and evaluation of evidence of the pollution draft. The Agriculture Department and President's Council on Environmental Quality, among others, also are involved in the hunt.

In his Aug. 2 environmental message, President Carter committed an additional \$10 million, over the next decade, to the research effort.

Much of the money is expected to go for research on the direct and indirect effects of acid rain and dust on people, land, plants, surface and underground water supplies, and man-made structures.

EPA admits that it does not fully understand the basic physical processes involved in the formation, spread and deposit of the acidic residues.

East of the Mississippi River, the principal source of the pollutants is the electric utility industry, whose coal-fired boilers spew millions of tons of sulfur and nitrogen oxides into the air yearly.

Ohio is the major source of the pollution, EPA experts say, accounting for about 11 percent of the nation's total polluted smoke.

The EPA has been battling with Ohio officials and utilities for years in an effort to bring the state into compliance with current air quality rules.

Mr. MOYNIHAN. Mr. President, I thank the Senator from Pennsylvania for his generous remarks. He is a full partner in this endeavor.

I see the Senator from Montana, who is also a cosponsor of this legislation. He has a modification of my amendment that strikes me as being altogether appropriate in this enterprise. I yield to the Senator from Montana.

Mr. BAUCUS. I thank the Senator from New York.

Mr. President, I think that it should be made very clear to the American people that Senator Moynihan's proposal to attack the problems associated with acid precipitation is a good one.

Many in this country are simply not aware of the seriousness of the problem, and that bold and energetic initiatives such as this one are

necessary if this country is to head off what is clearly a very formidable threat to its environment.

Not only do I uphold what Senator Moynihan is proposing, but I ask other Senators here in this Chamber to consider very carefully the potentially beneficial implications to their own States if this measure is adopted, and especially those Senators representing Western States.

Many of our children in the Eastern United States are already aware of the serious challenge that acid precipitation poses to the environment.

Without our realizing it, acid precipitation has killed literally thousands of lakes and streams in the Northeast, and, to no mean or insignificant degree, has poisoned many of the best agricultural lands throughout this country.

As serious as acid precipitation is, it is a subtle threat. It pollutes slowly, and in the past we have awakened to its challenge when it was too late. As a Nation, we have failed to understand acid precipitation, and as a result, we have not made the decisions necessary to curb its effects.

The cost has been the death of many of our lakes and streams, especially in the Northeast. But before it is too late this country, particularly the West, we must act in concert to attack this problem.

The peoples who inhabit other portions of the country apart from the Northeast must be aware of the threat that acid precipitation poses to them also, and they must understand this now.

I want to stress that Senator Moynihan's proposal has significant and positive implications for more than just the Northeast. It calls for widespread action, and over a period of several years. It calls for research which will reveal sources and solutions.

It calls for initiatives which will spare all portions of America this terrible threat. Speaking as a westerner, and one who is a strong supporter of our environment, I urge my colleagues to support Senator Moynihan in his most important efforts.

This is especially true for the Western interests of this country. Senator Moynihan has agreed to accept my proposal for four regional representatives, to be appointed by the President and approved by the appropriate committees of Congress, to the task force which his measure will establish. This means that the South, Southwest and Northwest will have an important voice in this decisionmaking body.

Regional representation on the task force will also enable Western States to voice concerns and solutions in addition to providing the hard data required for domestic and international solutions.

At this time, Senator Moynihan endorses an amendment I propose, which will give the Governments of Canada and Mexico the option to appoint one adviser each, who will have no decisionmaking capacity, to the acid precipitation task force.

This is an acknowledgement that acid precipitation will require international as well as domestic cooperation. It gives our neighbors an opportunity to share directly any information they deem necessary and beneficial to our common interests and our common concerns.

I applaud Senator Moynihan for his wisdom and eagerness to accept the revisions I have made to his important measure, and speaking as a westerner, and as a Senator who believes that the United

States must further cooperate with its foreign neighbors, I firmly endorse Senator Moynihan's measure to bring an end to the problem of acid precipitation.

UP AMENDMENT NO. 746

Essentially, Mr. President, the modification which the sponsor of the amendment has so graciously agreed to provides that the Governments of Mexico and Canada, at their option, may appoint a person to the commission, the task force, without any decisionmaking authority—as advisers only—due to the international implications of the development of synthetic fuel plants, not only in America but certainly in southern Canada and Mexico as well.

I urge the distinguished Senator from New York to accept it. I know he has already, for which I thank him.

Mr. MOYNIHAN. Mr. President, I send to the desk a modification of the amendment before us, which has been offered by the Senator from Montana.

Mr. JOHNSTON. Mr. President, the Senator has the right to amend his amendment, of course. As amended, we shall accept it.

The PRESIDING OFFICER. The clerk will state the modification.

The assistant legislative clerk read as follows:

The Senator from New York (Mr. Moynihan) further modifies his amendment with an unprinted amendment numbered 746:

Add to page 5, line 3 in (b) (1):

Recognizing that the solution to the problems of acid precipitation will require international as well as domestic cooperation, and recognizing that the Acid Precipitation Task Force is required to share research and other information with appropriate foreign governments, the government of Canada, and the government of Mexico, may, if they so chose, designate one representative each who would serve as members of the Acid Precipitation Task Force as advisers only, and who would not have any decision making function.

Mr. MOYNIHAN. Mr. President, I yield further to the Senator from Montana.

Mr. BAUCUS. Mr. President, I rise for a point of clarification. Being from the Northwestern part of the United States, I want to be sure that it is the understanding of the Senator from New York that one of the four regional representatives on the Commission will represent the Northwestern United States.

Mr. MOYNIHAN. The Senator is entirely correct. If I may say, we have the unimaginative but not impractical proposal of having four regions—meaning Northeast, Northwest, Southeast, Southwest.

Mr. BAUCUS. I thank the Senator for his impeccable logic and for his assistance.

Mr. DURENBERGER. Mr. President, I am pleased to cosponsor this amendment to S. 932 and to urge the support of the Senate for a program to research acid rain. For it is fast becoming one of the most significant and dangerous environmental problems, not only in the United States but throughout much of the industrialized world.

Indeed, the trend is painfully clear. Measurements of the acidity of rain and snow reveal that in Western Europe and in parts of the United States, precipitation has changed from a nearly neutral solution 200 years ago, to a much stronger solution of sulfuric and nitric acids. In the most extreme example yet recorded, a storm in Scotland in 1974, the rain was the acidic equivalent of vinegar.

Acid rain is created when sulfur dioxide and nitrogen oxides, two gaseous pollutants, are further oxidized to the acid form and fall in rain or snow. The phenomenon was first noted in industrial England during the early part of this century. Today, rain falling over the Eastern United States is concentrated 50 times greater in dilute sulfuric and nitric acid than 30 years ago. Sulfur from industry-refineries, metal smelters, and powerplants contributes 60 to 70 percent of the acidity. Most of the remaining acidity, nitrogen oxides, comes from auto emissions and powerplants.

The United States discharges 50 million tons of sulfur and nitrogen into the air each year. And this amount is expected to increase. For example, despite strict new air quality standards established for new powerplants, EPA tentatively predicts that emissions of sulfur dioxides by utilities will rise from 18.6 million metric tons in 1975 to 23.8 million metric tons in 1995 under existing regulations. This increase is due to the expected increase in the use of coal as a replacement for oil. Emissions of nitrogen oxide are also expected to increase substantially.

Acid rain is an international problem respecting no boundaries. Carried for days by global winds, acid rain falls to Earth in definite patterns along major weather routes. It causes acidification and degradation of soil, severe disruption of fresh-water ecosystems, and architectural damage and corrosion (estimated at \$2 billion a year in the United States). Over the long term forest productivity may be damaged, and public health may also be at risk from acid aerosols and the contamination of food and drinking water.

Some areas are especially vulnerable to the effect of acid rain, particularly those underlain by highly siliceous types of bedrock such as granite and quartzite. These rock types are resistant to weathering, and the characteristic soft waters of such areas have a low buffering capacity—a low ability to neutralize additions of acid. Bedrock geology, therefore, provides a rough indication of the location of sensitive areas.

The more than 1,000 vulnerable lakes in the Minnesota Boundary Waters Canoe Area, northern Wisconsin and Michigan are very sensitive to acid rain. In fact, they are comparable in vulnerability to other systems which have been severely impacted by acid rain and snow in Europe and in other parts of North America. Most of these surface waters have little ability to neutralize acid inputs from acid precipitation. Already atmospheric loadings near the Boundary Waters Canoe Area and Voyageurs National Park region in Minnesota are at levels associated with the onset of severe lake acidification in Sweden.

Indeed, research conducted by Dr. Gary E. Glass and others at the U.S. Environmental Protection Agency's Environmental Research Laboratory in Duluth, Minn., has indicated that at least 35 percent of the lakes in northeastern Minnesota and up to 15 percent of the lakes in Wisconsin have reached critical acidity levels, even without the addition of new pollutants. These lakes are literally on the verge of destruction from acid precipitation.

The diverse and valuable fishery of this area of Minnesota includes species which have been greatly reduced or eliminated by acid rain and snow in other parts of the United States and Canada. While damage

there has been less than in the Northeast, studies have shown increased levels of mercury in trout, Walleyed Pike and Northern Pike, which may well have resulted from acid rain. Fish kills not only result from the direct effects of acidic lake water, but also from the toxic metals—such as aluminum—that are released as acid rain is transported through surrounding soils. These same chemical processes could cause toxic substances to enter drinking water supplies.

The threat to the forests of Minnesota is also of great concern. Acid rain in the Voyageurs National Park, Boundary Waters Canoe Area and Superior National Forest may affect the growing rates of sensitive pine species, cause detrimental effects on other vegetation, and increase toxic element impacts on entire food chains.

Mr. President, the need for immediate legislative action to address this major problem has been clearly demonstrated. The amendment which I have cosponsored would establish the importance of: First, identifying the sources of acid precipitation; second, understanding the atmospheric chemistry resulting in acid precipitation; third, determining the environmental, social, economic, and health impacts of acid precipitation; fourth, developing and implementing a comprehensive plan to mitigate the harmful effects of acid precipitation in this Nation; five, utilizing universities and other research demonstration centers to encourage public participation in activities to remove the causes of acid precipitation and rehabilitate affected areas; and six, encouraging State participation in solving acid precipitation problems.

Mr. President, acid rain affects our entire country and, as a national and international issue, must be addressed by the Congress.

We urgently need to know if what we now suspect, and what we fear, is true regarding this global phenomenon. We must carefully monitor the trends and determine the extent of the sulfur dioxide and nitric oxide emissions. The decisions we make regarding the future must be made on the basis of the best information we can obtain. Unfortunately, we do not have much of the information that is vitally needed to solve the acid rain problem, and a major research effort is urgently needed to provide it. We must have this information if we are to make rational decisions regarding energy production and avoid severe impacts on the environment.

I strongly support this amendment and urge passage of this response to the critical problem of acid rain.

I ask that materials analyzing the effects of acid rain be printed in the Record following my remarks:

The materials follow:

ACID RAIN

(By Gene E. Likens, Richard F. Wright, James N. Galloway and Thomas J. Butler)

Measurements of the acidity of rain and snow reveal that in parts of the eastern U.S. and of western Europe precipitation has changed from a nearly neutral solution 200 years ago to a dilute solution of sulfuric and nitric acids today. In the most extreme example yet recorded—a storm in Scotland in 1974—the rain was the acidic equivalent of vinegar (pH 2.4). The main reason for this trend is the rise in the emission of sulfur and nitrogen oxides to the atmosphere accompanying the rise in the burning of fossil fuels. Partly because acid precipitation has a variety of harmful effects on plant and animal life, efforts have

been made to curb the emission of such oxides. Notwithstanding these efforts the level of emissions is expected to rise further under the present policy of turning increasingly to coal as a source of energy. At the very least the prospect suggests that a more substantial effort should be made to determine more precisely the effects of acid precipitation; it might also suggest a more vigorous exploration of ways to reduce the release of both sulfur and nitrogen oxides into the atmosphere.

Acidity in a solution such as rain is synonymous with the presence of hydrogen ions (H^+). A common measure of acidity is pH, which is defined as the negative logarithm of the hydrogen ion concentration. The pH scale ranges from 0 to 14, with a value of 7 representing a solution that is neutral, values below 7 indicating greater acidity and values above 7 indicating greater alkalinity. One should bear in mind that the pH scale is logarithmic, so that solutions of pH 5 and 4 contain respectively one, 10 and 100 microequivalent of acidity per liter (abbreviated $\mu eq/l$).

What determines the chemistry of rain and snow? The water comes from evaporation and transpiration (water vapor lost by plants) and is essentially distilled, or pure. Once the vapor reaches the atmosphere, however, it comes in contact with solid particles and soon reaches equilibrium with atmospheric gases. One of the gases is carbon dioxide (CO_2), and as carbon dioxide dissolves in the water, carbonic acid (H_2CO_3) forms. Carbonic acid, being a weak acid, dissociates slightly in distilled water, yielding hydrogen ions and bicarbonate ions (HCO_3^-). At normal concentrations and pressures of carbon dioxide in the atmosphere, the pH of rain and snow would be 5.6.

Other substances reaching the atmosphere tend to shift the pH one way or the other. For example, small amounts of dust and debris are swept from the ground into the atmosphere by the wind. Soil particles are usually slightly basic, alkaline, in distilled water and release into solution base cations (positive ions) such as calcium, magnesium, potassium and sodium (Ca^{++} , Mg^{++} , K^+ and Na^+) and with bicarbonate usually the corresponding anion, or negative ion. Ammonia in the atmosphere originates largely from the decay of organic matter. The ammonium ion (NH_4^+) in rain and snow tends to increase the pH. In coastal areas sea spray may contribute significantly to the chemistry of precipitation. Here important ions added are the ones most abundant in seawater, namely the cations Na^+ and Mg^{++} (sodium and magnesium), the anion Cl^- (chloride) and to a lesser extent cations of calcium and potassium (Ca^{++} , K^+) and anions of sulfate (SO_4^{--}).

Gases such as sulfur dioxide (SO_2) and hydrogen sulfide (H_2S), which come from volcanoes and from other natural sources, can also alter the chemistry of precipitation locally. Sulfur dioxide and hydrogen sulfide are oxidized and hydrolyzed in the atmosphere to sulfuric acid. Nitrogen oxides are similarly converted into nitric acid. If these acids are present in significant quantities, they can acidify precipitation to below pH 5.6.

The chemistry of natural precipitation, then, depends on the relative amounts of these various substances in the atmosphere. The precipitation in coastal areas can be generally characterized as very dilute seawater if winds are toward shore. In areas with high winds and sparse vegetation, such as deserts, the precipitation may contain relatively large amounts of base cations. Precipitation regions with calcareous soils often contains calcium and bicarbonate, presumably as a result of the incorporation of dust, and the pH of rain and snow is usually well above 6.

The pH of precipitation that fell before the Industrial Revolution and has been preserved in glaciers and continental ice sheets is generally found to be about 5. Swiss workers in Greenland recently measured the pH of ice that had been named as snow some 180 years ago; it had a pH ranging from 6 to 7.6.

Human activities have significantly changed this picture on a continental and perhaps a global one. Large quantities of sulfur and nitrogen oxides are emitted into the atmosphere by the combustion of fossil fuels and the smelting of sulfide ores, particularly in the heavily industrialized and urbanized North Temperate Zone. These oxides are converted into strong acids (sulfuric, nitric) in the atmosphere and fall to the ground in rain and snow. Strong acids dissociate completely in dilute aqueous solutions and lower the pH to less than 5.6. The definition of acid precipitation is rain and snow at a pH below that value.

An irony in this matter is that the trend toward building taller stacks to relieve local problems in industrial ones. In 1955 only two stacks in the U.S. were higher than about 180 meters; now essentially all stacks being built in the world. In the United Kingdom 45 stacks taller than 300 meters had been built in the war

In the United Kingdom tall stacks were an integral part of measures employed to reduce the severity of smog in London after episodes of life-threatening pollution in the 1950's.

The copper-nickel smelter in Sudbury, Ont., has a superstack more than 400 meters tall. Some 1 percent of the total annual emissions of sulfur throughout the world (from both natural sources and human activity) come from this one smelter complex. During the past decade the annual emissions of sulfur from Sudbury have about equaled the amount thought to have been emitted by all the volcanoes of the world.

It is beyond argument that such pollutants are transported over long distances through the atmosphere. Studies of the deposition of sulfur, lead and other materials on the Greenland ice cap and in other remote places demonstrate such mechanisms of dispersal. What is a matter of sometimes heated discussion, particularly when it is alleged that pollution is crossing a political boundary, is the proportion of pollutants that can be attributed to remote sources.

On an annual basis rain and snow over large regions of the world are now from five to 30 times more acid than the lowest value expected (pH 5.6) for unpolluted atmospheres. The rain of individual storms can be from several hundred to several thousand times more acid than expected. Concern over the environmental effects of acid precipitation has led to major research efforts in Sweden, Norway, the U.S. and Canada.

Acid precipitation has been known for many decades in the vicinity of large cities and industrial plants such as smelters, but the phenomenon is now much more widespread. In large areas of the eastern U.S., southeastern Canada and western Europe the annual average pH of precipitation ranges from about 4 to 4.5. Since the data are fuller for Europe than for North America, we shall discuss Europe first.

The discovery that precipitation in large regions of Europe had become decidedly acidic followed the establishment in the 1950's of the European Atmospheric Chemistry Network (also known as the IMI Network, for the International Meteorological Institute in Stockholm). At times the network encompassed up to 175 stations in northern and western Europe, from which monthly samples of bulk precipitation (a method of collecting with sampling apparatus that is always open) were analyzed for the concentration of 11 major ions. Although many of the stations are no longer in operation, the data provide a record for the pH of precipitation on a regional scale in Europe more than 20 years ago.

In 1968 Svante Oden of Sweden pointed out that precipitation in Europe had clearly become more acidic since the network was established. Maps of volume-weighted mean annual pH in precipitation showed that a central region of high acidity (pH 4 to 4.5) had spread from the area of Belgium, the Netherlands and Luxembourg in the late 1950's to most of Germany, northern France, the eastern British Isles and southern Scandinavia by the late 1960's.

The Organisation for Economic Cooperation and Development (OECD) recently concluded a three-year study that gives a more detailed picture of the present acidity of precipitation in Europe. The results of the study appear in *Long-Range Transport of Air Pollutants, Measurements and Findings*, a summary of the daily sampling done at 67 stations from 1973 to 1975 as part of the OECD project. The resulting map shows that acid precipitation has continued to spread and today encompasses nearly all of northwestern Europe. (The situation in eastern Europe is unclear for lack of long-term data; clarification may be at hand from data from a new network for precipitation chemistry initiated by the United Nations' Economic Commission for Europe.)

The lowest pH value reported for an individual storm in Europe up to now is 2.4 on April 10, 1974, at Pitlochry, Scotland. In the same month values of 2.7 and 3.5 were reported respectively on the west coast of Norway and at a remote station in Iceland. The lowest annual pH yet recorded was 3.78 in 1967 at De Bilt in the Netherlands.

At some stations the increase in the annual concentration of hydrogen ions in precipitation since 1955-56 has been about tenfold. This increase in acidity is matched by increases in the concentrations of sulfate and nitrate over the past 20 years. In northern Europe the excess sulfate concentration (in excess of contributions of sea salt) rose markedly from 1955 to about 1963 and has remained virtually constant since then; overall the rise from 1955 to 1975 was about 2 percent per year. The concentration of nitrate in precipitation has increased quite steadily since 1955 at the rate of about 4 percent per year. Both increases parallel rises in the emission of sulphur and nitrogen oxides from the combustion of fossil fuels.

Emissions of sulfur dioxide in Europe were estimated at about 25 million metric tons of sulfur in 1973. A map showing the regional sources was prepared as part of the OCED study; it revealed regions with particularly high emissions in central Britain, the Ruhr area of West Germany, the coal areas of southern East Germany, southern Poland and Czechoslovakia. It is estimated that human activity accounts for about 90 percent of the sulfur emissions.

It is also estimated that the annual anthropogenic emissions of nitrogen oxides from the 11 OCED countries of Europe totaled about two million metric tons of nitrogen in 1973. The OECD study indicated that these emissions almost doubled from 1959 to 1973. A similar trend might be expected for eastern Europe. In addition biological processes supply oxides of nitrogen to the atmosphere, but the magnitude and significance of these emissions are not known.

The general pattern of the deposition of acid in European rain and snow reflects the long-range transport of air pollutants from the sources of emission. The pH of precipitation is generally lowest near the sources and increases with distance. The normal flow of air from southwest to northwest results in an asymmetrical pattern, with acid precipitation reaching far up into northern Scandinavia. Swedish investigators have calculated that more than 70 percent of the sulfur in the atmosphere over southern Sweden is from human activity, the magnitude and significance of these emissions are not known.

The gradient of acidity is accentuated in mountainous areas that are generally downwind of urban and industrial sources. Mountains enhance precipitation, which continuously removes pollutants from passing masses of air. This situation is found in southernmost Norway, where air masses from the major source areas in the British Isles and central Europe travel many hundreds of kilometers over the North Sea and over land areas of relatively low relief before most of the pollutants are removed in the precipitation over a belt from 100 to 200 kilometers wide along the mountainous Norwegian coast. By the time the air masses have passed over mountainous areas with an elevation of 1,000 meters or so the pH of the precipitation has changed from an average of 4.2 at the coast to 4.6 or 4.7, representing a decrease in the concentration of hydrogen ions from about 60 microequivalents per liter to about 20.

Since mountains enhance precipitation, their windward flanks receive large amounts of acid. Data from the OECD project show that the annual deposition of acid in rain and snow in 1974 was highest along the mountain slopes of southernmost Norway, southern Germany and Switzerland. Values ranging from 88 milliequivalents per square meter per year to 120 were observed in those areas.

Dry deposition of sulfur dioxide gas and particulate sulfate also represents the deposition of an equivalent amount of hydrogen ions. Data from the OECD study show maximum values of dry deposition of 10 grams of sulfur per square meter per year in central Europe, or four times the deposition rate by rain and snow, with rates decreasing rapidly with increasing distance from the emission sources to values of about .1 gram in northern Scandinavia. Wet deposition of sulfate in rain and snow begins at three grams of sulfur per square meter per year near the major sources and decreases less rapidly to .5 gram in northern Scandinavia. Dry deposition of sulfur is therefore the dominant mode near the emission sources, whereas wet deposition dominates in remote areas of northern Europe.

The record of changes in precipitation chemistry over North America is much less clear. No monitoring network has been maintained from the 1950's to the present. Even today the monitoring that is done is not sufficient to give a detailed picture.

It is known that before about 1930 relatively large amounts of bicarbonate were found in samples of precipitation in Virginia, Tennessee and New York. Although no determinations of pH were made, the presence of bicarbonate in the samples shows that they could not have had a pH of less than 5.6. The earliest measurement of precipitation pH in the U.S. that we know of was made during a rainstorm in Maine in 1939 by Henry G. Houghton of the Massachusetts Institute of Technology. He obtained a value of 5.9.

If accurate chemical data are available and the hydrogen-ion concentration is more than about three microequivalents per liter, reliable pH values can be calculated from a detailed chemical analysis of dilute aqueous solutions. Such chemical data were collected for precipitation at 24 sites in the eastern U.S. in 1955-56 by C. E. Junge of the Air Force Cambridge Research Laboratory. The data have been employed to calculate the pH distribution at the time. Although the density of sampling points was low, the general pattern is quite clear: a large area of the northeastern U.S. was receiving acid precipitation by 1955.

through 1966 the U.S. Public Health Service and then the National Atmospheric Research operated a sampling network for precipitation throughout the 48 contiguous states of the U.S. During the latter part of the period (1964-66) some 30 stations, 17 of them east of the Mississippi, made monthly samples of rain and snow with automatic samplers that were measuring precipitation. The majority of the stations west of the Mississippi showed monthly pH values above 5.6; most commonly the values were above 6.5. East of the Mississippi the precipitation was much more variable, with the paucity of the data from this now discontinued network making the pattern quite obvious: areas of acid precipitation were in the eastern U.S., with the most acidic rain and snow falling on the New York and Pennsylvania.

There is no high-density, synoptic coverage of the chemistry of precipitation in North America. The situation may soon improve, however, because the U.S. and Canada have started long-term programs for measuring atmospheric deposition. The Canadian Network for Sampling and Deposition (CANSAP) began operating in 1976 and the U.S. National Acid Deposition Program (NADP) was initiated in 1978.

Efforts to obtain synoptic data on the current pH of precipitation in the U.S. have been personally communicated with all the individuals, groups and federal agencies we knew to be studying precipitation chemistry. Although the density of sampling points is still low (46 stations east of the Mississippi and 19 more in Canada), it is much higher than it was in 1965-66 or 1970-71. The data reveal a southward and westward extension of the area of acid precipitation and an intensification of acidity in the Northeast since 1955. (We wish to acknowledge in this context the contributions of M. Aubertin and J. Currier for data for West Virginia; Patrick L. Gainesville, Fla.; T. Burton for Tallahassee, Fla.; D. Charles for New York; K. G. Dickson for the Lake Okechobee area in Florida; M. J. Corkscrew Swamp in Florida; the Environmental Data and Inventory Service for Caribou, Maine, Wake County and Macon County in North Carolina; Underdale County in Mississippi, Salem, Ill., and Atlantic County in New Jersey; Donald F. Gatz for Urbana, Ill.; Bruce L. Haines for Athens, Ga.; James for Sapelo Island, Ga.; G. S. Henderson for Oak Ridge, Tenn.; James for Yonkers, N.Y.; K. Kuntz for Ontario; J. G. McColl and J. G. McCall for Minnesota; J. M. Miller for Washington, D.C.; M. P. Olson for Sable Island in Canada; Rosa de Pena for State College, Pa.; James for Michigan; W. T. Swank for Asheville, N.C.; the U.S. Geological Survey for sites in the Northeast, and Herbert L. Volchok for Argonne, Oak Ridge, N.Y., Chester, N.J., and Woods Hole, Mass.)

It is worth noting that the most rapid increase in precipitation acidity over the past two decades has been in the Southeast. (The trend is more apparent in the Northeast because a smaller amount of acid is required to cause a change in pH from, say, 6 to 5 than from 5 to 4.) In the same period the Southeast has experienced a large expansion of the urban and industrial activities that give rise to emissions of sulfur and nitrogen. In the Southeast, sulfate concentrations in precipitation have increased several fold since 1955. Although sulfuric acid is the dominant acid in acid precipitation, nitric acid appears to be contributing an increasing proportion of the hydrogen ions in acid precipitation. In the Southeast, nitrate concentrations in precipitation have increased several fold since 1955. Although sulfuric acid is the dominant acid in acid precipitation, nitric acid appears to be contributing an increasing proportion of the hydrogen ions in acid precipitation.

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Estimates of the dry deposition of sulfur in the U.S. and Canada are available. A recent report by the National Academy of Sciences on sulfur deposition states that the dry deposition of sulfur is approximately equal to the amount in the eastern U.S.

There are large sources of emissions in the middle-western U.S. and the amount of air is from west to east, it is understandable that acid precipitation is a phenomenon of eastern North America. The phenomenon could become more widespread, in the view of the planned increases in the combustion of fossil fuels in the western regions of the continent.

What has the increased acidity had on the environment? The question is not fully answered, but certain freshwater ecosystems seem to be particularly sensitive to inputs of acid. Such ecosystems are generally in areas of highly siliceous types of bedrock such as granite, some gneisses, and quartz sandstone. These rock types are highly resistant to disintegration by weathering, with the result that surface waters in such areas

contain very low concentrations of ions derived from weathering. Characteristically such soft waters have a low buffering capacity (a low ability to neutralize additions of acids or alkalis). Hence when acid precipitation falls on such an area, the acids are not fully neutralized in the terrestrial watershed or catchment, and so streams and lakes become acidified.

Bedrock geology therefore provides a rough indication of the location of such sensitive areas. Maps of the bedrock, however, do not take into account the mineralogy of overlying, unconsolidated deposits such as glacial till, glacioluvial materials and marine sand, which may have been transported far from their source and may have a mineralogy quite different from that of the bedrock. Local variations in the chemistry of surface waters then may result from differences in these two geological substrates, in soil type and in vegetation.

Areas of highly siliceous bedrock are widespread on the Precambrian Fennoscandian Shield in Scandinavia, the Canadian Shield, the Rockies, New England, the Adirondacks, the Appalachians and smaller areas elsewhere. Fresh waters acidified to below pH 5 as a result of acid precipitation are found in southern Norway, southern Sweden, Britain, the Netherlands, East Germany, Nova Scotia, Ontario, northern New England, The Adirondacks and Florida. One clear effect has been on the fish populations, which have been virtually wiped out or severely reduced in acidified lakes in some of these regions.

For example, in southern Norway the acidification of thousands of freshwater lakes and streams has affected fish populations in an area of 33,000 square kilometers. In addition several other ecological changes have been observed as a result of the acid stress in such lakes. The rate of decomposition of organic matter is slowed, presumably because of changes in the predominance of bacteria and fungi. Bacteria, which are efficient decomposers, generally do worse in an acid environment. Changes occur at all levels of the food web; phytoplankton zooplankton and fishes, all of which decrease in number of species. Even the behavior of organisms may change because of changes in their environment.

The distribution of acid lakes is congruent with the distribution of acid precipitation. Further evidence of the impact of acid precipitation is that acid fresh waters are normally not found in regions that would be sensitive to acid (being nutrient-poor and poorly buffered) but lie outside the regions of highly acid precipitation. These observations lead to the conclusion that both the amount of acid in precipitation and the geological characteristics of the area are important in determining the sensitivity of fresh waters to acid precipitation.

Working with water-chemistry data from more than 1,000 lakes in Norway, Arne Henriksen of the Norwegian Institute for Water Research has recently developed an empirical relation by which the sensitivity of a given freshwater system to inputs of acid precipitation can be estimated. For example, he predicts that a calcium bicarbonate soft-water lake of the kind found by the thousands in North America and northern Europe with about 80 microequivalents per liter of bicarbonate (corresponding to about 1.7 milligrams of calcium per liter and a pH of about 6.5) will lose its bicarbonate buffer to the point where the pH drops below 5 and fish are eliminated if the long-term average pH of precipitation is below about 4.3. It would take precipitation even less acidic to give rise to similar conditions in lakes with originally lower concentrations of bicarbonate.

Summer rains are appreciably acid in large areas of North America and Europe, particularly the first part of a rainstorm. They are certainly within the range of acidity where laboratory studies indicate that harmful effects could be expected on growing vegetation if it were exposed and sensitive. It is difficult, however, to isolate the effects of one environmental stress from all the others affecting vegetation, and so the overall effect of acid precipitation on plants has to be regarded as ambiguous in the light of the present state of knowledge.

A natural ecosystem is extremely complex, with numerous interactions at all levels of organization. Evaluating the effects of acid precipitation on such a system is difficult and expensive. The social, economic and political aspects of acid precipitation are particularly vexing because air, rain and snow are not confined by political boundaries. For example, Norway is now completing a \$10-million study of the effects of acid precipitation on its forests and lakes. In the U.S. a recent report by the National Atmospheric Deposition Program to the President's Council on Environmental Quality (CEQ) concluded that a program of research costing \$9 million per year will be necessary to evaluate the phenomenon of acid precipitation and its effects.

It seems unlikely that the combustion of fossil fuels will decline in the industrialized countries over the next 30 years or so. It is more likely to increase be-

cause of the increased reliance on coal as a replacement for oil. The question of the broad environmental effects must be faced. In the U.S. the President's Committee on Health and Environmental Effects of Increased Coal Utilization has identified acid precipitation as one of the two major global environmental problems, the other being the increased emissions of carbon dioxide with their potential effect on climate.

In the U.S. the Environmental Protection Agency (EPA) has ruled that from 70 to 90 percent of the gaseous sulfur must be removed from the emissions of all new coal-based power plants. Old plants remain largely uncontrolled. The control in new plants would be achieved by the installation of scrubbers: flue-gas desulfurization units.

Even so, the EPA predicts that emissions of sulfur dioxide by utilities, which are by far the largest single source in the U.S., will rise from 18.6 million metric tons in 1975 to between 20.5 (with conservation and the best available controls) and 23.8 million (under existing regulations) in 1985. Although such projections are dependent on a variety of known and unknown factors and hence are tenuous, with increased emissions of sulfur dioxide (and nitrogen oxides) it can generally be expected that the deposition of hydrogen ions with precipitation will increase.

The installation of scrubbers is expensive, but the environmental costs of inadequately controlled emissions are also large. Many costs are hidden, particularly the ones associated with the synergistic effects of the stresses that acid puts on organisms (for example, increasing their susceptibility to pathogens and predators). The easy solutions, such as burning low-sulfur coal and oil, have already been applied in the control of emissions in some areas. Nevertheless, in some areas the pH of rain and snow has already been pushed through the "easy" part of the scale (from 7 to 4). Reductions in acidity will now be more difficult and far costlier to effect. Ultimately the solution to the acid-precipitation problem lies in the decrease in emissions of sulfur and nitrogen oxides to the atmosphere. This objective can be achieved with a combination of improved control technology and the conservation of fuel.

[From the New York Times, Nov. 11, 1979]

ACID RAIN: AN INCREASING THREAT

(By Bayard Webster)

Toronto.—The rapid rate at which rainfall is growing more acidic in more areas has led many scientists and governmental officials to conclude that acid rain is developing into one of the most serious worldwide environmental problems of the coming decades.

Rainfall with an acidity level of vinegar that can have a deleterious effect on aquatic and terrestrial ecosystems has been reported in widely separated areas of the earth in recent years. And the trend toward more acidic rain has been accelerating in eastern Canada, the northeastern and northwestern United States, the southern Appalachians, parts of Florida, and in Europe and sections of Asia.

A three-day conference here last week on acid precipitation and its movement across national boundaries attracted more than 700 scientists, government officials, industrialists and environmentalists from Canada, the United States and Europe. In more than a score of seminars and meetings, discussions and lectures were held on the sources and causes of acid rain, the extent of its air pollution role, possible corrective measures and the outlook for the future.

John Fraser, Canada's Minister of the Environment, who addressed the conference, said in an interview that acid rain was "the most serious environmental problem that Canada faces." He noted that toxic fumes from Canada's smokestacks that caused acid rain were transported across the border to the United States, where they had a damaging impact, just as American emissions carried northward had a major impact in Canada.

"The problem can't be solved without an agreement between the two countries," he said, adding the diplomats were working on a treaty and that President Carter and Canadian Prime Minister Joe Clark were scheduled to discuss joint action when they meet in Ottawa next weekend.

Gus Speth, the chairman of the United States Council on Environmental Quality, told the conference that "too much damage has already been done by acid rain—too many trout lakes and salmon streams have already been rendered

lethal to fish, and valuable wilderness areas are beginning to show signs of acidification."

Although many aspects of the physical and chemical actions that occur in the formation of acid rain are not known, scientific research has pinpointed the major events that take place. Acid rain is formed when the gases of nitrogen oxide and sulfur oxide are emitted into the atmosphere and, as they are carried along by wind currents, they combine with water vapor molecules and are transformed over a period of hours or days into microscopic drops of nitric and sulfuric acids. These are returned to earth when they encounter rain- or snow-producing clouds, sometimes hundreds or thousands of miles from their original point of emission.

Sulfur dioxide, which comprises about 60 percent of the acid components of acid rains, is created almost entirely by the combustion of coal and oil in power plants, smelters, steel mills, factories and space heaters. Nitrogen oxide, which makes up about 35 percent of the acid in the rains, originates in the exhausts of internal combustion engines, mostly in automobiles, and in the emissions resulting from high-temperature fossil fuel combustion processes.

TROUT AND SALMON AFFECTED

In North America, surveys by chemists, biologists and nature conservation groups such as the National Wildlife Federation have shown that the United States and Canada discharged some 50 million tons of sulfur and nitrogen oxides into the air each year. In Europe, industrialized countries such as Britain, Germany and France produce millions of tons that affect their neighbors, particularly Scandinavia.

The effects of acid rains include the decimation or malformation of fish, particularly trout and salmon, in acidified streams and lakes in North America and Europe. It has been estimated that some 50,000 lakes in the Adirondacks and Canada have become acidified to the point that the fish population has declined or been destroyed.

Several scientists at the conference said that acid rains can cause the leaching of essential plant nutrients from the soil and can reduce nitrogen fixation by microorganisms, causing the soil to be less fertile. They also reported that above-normal amounts of acids in lakes and streams tends to cause the extraction from the bottom sediments of toxic metals such as cadmium, lead and aluminum. These, like sulfuric and nitric acid, can destroy fish and contaminate drinking water.

RELATIVELY LITTLE RESEARCH

The acidity or alkalinity of water is commonly measured by the pH scale, which ranges from 0 to 14. A reading of 7 is neutral; readings above 7 are alkaline and below 7 are acidic. Biologists consider that rainfall or water with a pH lower than 5.6 can be harmful to plant, animal and human life. The average pH of normal rainfall, 5.6, is slight acidic but harmless because of the naturally and human-generated carbon dioxide in the air, which forms mild carbonic acid when united with water molecules.

The advent of acid rains that have lowered the pH of some lakes and streams to levels ranging from 5 to 2.8 has become most noticeable in the last 10 years as the number of power plants, ore smelters and automobiles has multiplied in industrialized countries. As a result, there has been comparatively little scientific research into the effects of sulfur dioxide and nitrogen oxides on soil and on animal and plant life. More has been discovered about the impact of sulfur oxides than that of nitrogen oxide because the latter chemical involves a more complicated series of chemical actions in the formation of acid rain than does its constant companion, sulfur dioxide.

Attempts have been made to disperse or detoxify the emissions that cause acid rain to offset the rain-caused acidity of lakes, streams and soils, and to breed new plant or animal species that would be acid-resistant. Biologists, agronomists and industrial concerns have devised various systems, devices and breeding programs, most of which, ironically, have had effects opposite to those intended.

SCRUBBERS ARE EFFECTIVE

Smokestack scrubbers, which remove much of the sulfur at the point of emission, have been found to be an effective but expensive way of alleviating the problem at the source. But the following methods and plans have proved counter-productive or hold little hope for the future:

Tall smokestacks. Originally built to disperse acid emissions that fell on surrounding urban areas, the stacks have been found to send the offending chemicals high in the atmosphere, providing them with the air currents that transport them to rain clouds miles away. A copper smelter smokestack in Sudbury, Ontario, is 300 feet tall and has been found to be the cause of acid rains that fall miles away.

Liming of acidified lakes. In attempts to decrease the acidification of lakes, lime has been added to the water. But the lime has combined with heavy metals in the bottom sediment, freeing them and increasing the toxicity of the water.

Breeding acid-resistant fish. Dr. Harold Harvey, a University of Toronto zoologist, told the conference that "It makes no sense to breed acid-resistant fish," adding, "Would we breed a gas-resistant canary for miners?"

Many scientists told the audience that perhaps the most serious problem would turn out to be the long-range irreversible effects of acid rains. In an interview Dr. Jay Jacobsen of the Boyce Thompson Institute at Cornell University said of acid rain: "It occurs repeatedly, it affects large regions and it falls on different political arenas. So it's going to be hard to cope with. What happens when you change the soil's chemistry for example? We're going to have to institute a long-range monitoring program for air, soil and water before we really find out the extent of the problem."

[From the Minneapolis Tribune, Nov. 7, 1979]

POLLUTION DISPUTE UNSETTLED AS ATIKOKAN PLANT GOES UP

(By Dean Rebuffoni)

ATIKOKAN, ONTARIO.—In the woods seven miles north of Atikokan, in the middle of a triangle formed by three lakes, a wide swath of land has been cleared of its trees, stripped of its brush and bulldozed smooth.

Right over there, said Don Beckett, is where the powerhouse will be built. And there, just beyond the site of the administrative building, will be the lignite coal stockpile, he said. The smokestack, 850 feet tall, will be over there, he said.

And there, right there, he said, is where the cooling water from Moose Lake will be pumped into the plant, circulated through it and discharged over there, into Snow Lake.

"It's almost an ideal situation," he said. "We'll be making use of something—water—which was already altered for use by the iron mines. We can do that without bugging up more ground."

Beckett has this nice, very-y-y Canadian, title—Superior Supervisor Managing Construction—and he's the man that Ontario Hydro has hired to build a \$600 million, coal-burning, electrically-producing power plant.

It is, of course, the same plant that for the last three years has been the target of heavy criticism by environmentalists in Canada and the United States. They charge that it will pour a particularly harmful form of pollution—acid rain—on portions of both nations.

The environmentalists pointed out that the plant would be built 11 miles from Quetico Provincial Park, 35 miles from the Boundary Waters Canoe Area Wilderness (BWCA) and 45 miles from Voyageurs National Park. They charged that sulfur dioxide emitted from that tall plant smokestack would combine with water vapor and turn up in rain as sulfuric acid. And that, they said, would be particularly damaging to the region's soft water lakes and coniferous forests.

At first, the environmentalists tried to prevent the plant's construction and failed. Then, aided by U.S. officials, they tried to convince the Canadian government that the two nations' dispute over the plant should be resolved by an international advisory body. Again, they failed.

Then the environmentalists tried another approach. Since you're going to build the darned thing anyway, they told the Canadian government, at least install sophisticated air pollution control equipment on it.

And, again, they failed.

So work on the plant began in earnest in January 1978 and now there are about 100 construction workers busy in the woods north of Atikokan. That will increase to 180 workers next year and to 780 in 1982, when construction is at its peak. Within five years, the plant should be producing electricity.

But it won't be producing as much power or as much pollution as the environmentalist had feared that it would—at least not in the foreseeable future.

Ontario Hydro, the electric utility owned by the provincial government, originally planned to build an 800-megawatt plant at Atikokan. That would have cost \$800 million.

However, the utility decided in April to scale down the plant to a 400-megawatt version because of a decline in demand for power in Ontario. The scaled-down plant will consist of two 200-megawatt generating units. The first unit is to be operating by 1984; the second by 1988.

Still, Ontario Hydro readily admits that an additional 400 megawatts could later be added at the plant, depending on future electrical demands.

While the environmentalists worry about the plant's impact on the wilderness, most of Atikokan's 6,000 residents look forward to having the plant as a neighbor. In part, that's simply because there's so much wilderness in Ontario, and the potential harming of some of the province's woods and waters seems to be a small price to pay for having a new source of electricity.

But a key reason for Atikokan's enthusiasm is the fact that the plant is creating jobs in a town where new jobs are at a premium.

For years, Atikokan's economy has been based on the wages paid by two major iron-ore mining operations: Steep Rock Iron Mines and Caland Ore Co. Together they employed about 1,200 workers.

But Steep Rock shut down last year, and Caland is phasing out its operations. Those mines made use of the same set of lakes from which the power plant will draw its cooling water. As Beckett said, that means Ontario Hydro won't be disturbing more ground.

Some supporters of the plant have suggested that its 650-foot smokestack will be tall enough to disperse pollutants over a wide area and thus reduce their harmful impact. That argument has particularly angered environmentalists, who contend that "dilution is the solution to pollution" is an old argument that has been thoroughly discredited by new research.

They have pointed out that International Nickel Company's 1,200-foot-tall smokestack on its copper smelter at Sudbury, Ontario, has been found to be the cause of acid rain that falls miles away.

The answer, environmentalists say, is for Ontario Hydro to install sophisticated scrubbers on the smokestack that will trap sulfur dioxide and other pollutants before they are released into the atmosphere.

Beckett said it may be possible, although he is not certain, that scrubbers could be added to the Atikokan plant in the event that the two nations reach some sort of international air quality agreement calling for such equipment. An agreement is under discussion between top U.S. and Canadian officials.

But scrubbers would cost up to \$70 million, depending on the ultimate size of the plant. Ontario Hydro has not been too excited about paying such a high price, in part because the plant as it is now designed will meet Canadian and Ontario environmental standards. Also, the provincial utility simply doesn't agree with U.S. studies that contend the plant will cause severe environmental harm.

For example, at an international conference on acid rain in Toronto last week, an American researcher said that acid rain from the smaller version of the Atikokan plant could significantly damage waters in the BWCA and Voyageurs Park.

The researcher, Gary Glass, is a chemist at the U.S. Environmental Protection Agency's research laboratory in Duluth. His recently-completed study on the impact of the power plant on Minnesota wilderness areas has been frequently cited by environmentalists in the United States and Canada.

Glass said that new projections show that the plant will increase acid rain falling in northeastern Minnesota by 25 percent. He said that even relatively small amounts of additional acid could push some of the region's lakes, which now are teetering on the brink of acidification, over the edge.

But his figures were disputed at the Toronto conference by W. R. Effer, Ontario Hydro's manager of environmental studies.

"The effects of the Atikokan plant on air quality and acid rain have been grossly exaggerated," he said, adding that his research shows that the plant will not violate Canadian, Ontario or U.S. air-quality standards.

Mr. COHEN. Mr. President, I rise in support of the amendment offered by the Senator from New York (Mr. Moynihan).

ne of the most deadly environmental problems we face in the industrial world today is, sadly enough, among those we know the least about.

Every day of the year, our food crops, fish, trees, lakes, soil and buildings are poisoned by deadly chemicals which rain on them from the sky. These deadly compounds, which are created when sulfur dioxide and nitrogen oxides, two gaseous pollutants, react and combine with rain water, know no boundaries. Carried for days by global winds, the "acid rain" falls to Earth in definite patterns along major weather routes. Recipients of acid rain may be thousands of miles away from the original source of the pollutants.

Canada, for example, estimates that wind carries some 4 million tons of U.S. sulfur dioxide up the St. Lawrence corridor each year. However, every year 1.3 million of the 8 million tons generated by Canada drift south over our border.

The effects of this deadly precipitation are acidification and demineralization of the soil, reduction in crop and forest productivity, agricultural damage and corrosion—estimated to cost the United States \$1 billion annually—health effects—estimated to cost at least \$1.7 billion—and the disruption of freshwater ecosystems.

While our European neighbors have long had their own air quality monitoring system in order to accumulate data to cope with this problem, we in the United States have only begun to understand the phenomenon and the potential remedies.

Federal responsibility for this problem must increase as the Government encourages the burning of coal and synthetic fuels rather than oil, for combustion of these fuels will only continue to aggravate the spread of acid rains.

I believe the time has come for us to formulate a comprehensive plan to deal with acid precipitation. Only by coordinating national, State, local and private efforts to reduce acid rain can we begin to understand meaningful ways to combat this problem.

For these reasons, I wholeheartedly support the amendment offered by the Senator from New York, which under the guidelines of the Acid Precipitation Act of 1979 introduced earlier this year, would establish a task force to study the acid rain phenomenon over an 11-month period.

The task force would be directed to develop a comprehensive plan to coordinate the efforts of different Government agencies, university research and demonstration centers and public and private organizations.

At the Federal level, the task force would establish programs designed to not only research the complex meteorological and chemical processes involved in acid rain, but foster scientific and management exchanges and agreements with foreign governments and international organizations. At the State level, this legislation would encourage Federal and State cost-sharing programs to produce the capital expenditures needed for controlling pollution sources and rehabilitation in affected areas.

The Federal task force is also directed to assess the effectiveness of its programs in meeting the overall objectives of the amendment.

Each year a report would be submitted to Congress documenting the progress made to date toward finding solutions to the acid rain problem.

In the meantime, the Federal Government must assume the responsibility for a more vigorous program to detoxify our lakes and streams. At present over half of the lakes in the Andirondacks and Canada—some 50,000—are so acidified that the fish population has declined or been destroyed.

In my own State of Maine, researchers have begun to find sharp increases in the acidity levels in hundreds of lakes, making it difficult for plants and fish to survive, and threatening trout and salmon populations.

Additional effects of acid rains which have been detected include the leaching of plant nutrients from soils, and the extraction from lake and stream beds of toxic metals such as cadmium, lead and aluminum which can destroy fish and contaminate drinking water.

I cannot emphasize strongly enough the importance of identifying and tackling this serious problem, and I urge my colleagues to support this amendment.

Mr. NELSON. Mr. President, I am pleased to cosponsor the amendment offered by my distinguished colleague from New York (Mr. Moynihan).

The threat to our Nation's lakes, forests, and agricultural lands, buildings, and even our own health posed by the present and growing danger of acid rain is far too serious to receive any less than the immediate attention proposed by this amendment. According to yesterday's New York Times, many scientists and government officials have concluded that:

Acid rain is developing into one of the most serious worldwide environmental problems of the coming decades.

We have no choice but to act now to prevent any further escalation of this danger into a worldwide calamity.

At the same time, I need not remind you of the multiple threats to the external and internal national security posed by our current energy situation. Everyone of us recognizes the absolute necessity of reducing our dependence on foreign sources of oil. And none of us doubts that our energy status quo will fail to achieve energy independence.

Over the past weeks, Congress has voted to cast aside the energy status quo, with legislation on several energy development and related issues. During each debate, scientists, physicians, and others have identified potential dangers and urged that an extra measure of caution and care for the health of our environment be included in any formula to speed up the pace of our march toward energy independence.

This is the case today. Acid rain is produced, primarily, by the interaction of emissions from our fossil fueled powerplants, factories, and automobiles with moisture in the atmosphere. The problem was first identified as early as 1880 in industrial England, but only recently have we realized the full potential for destruction of acid rain. We cannot allow this danger to go unchecked. The consequences are far too great.

lake in Toronto, scientists from all over the world gathered their research into this phenomena. According to these and scientists, acid rain:

- removes essential plant nutrients from the soil and reduces nitrogen by micro-organisms, causing the soil to be less fertile;
- the release of toxic metals from bottom sediments in lakes, aquatic and terrestrial life and contaminating drinking water beyond recommended standards for human health;
- reduces forest yields;

- reduces crops and reduces agricultural yields;
- destroys metal, painted woodwork, limestone, and sandstone, at a rate of one inch per person in the United States in 1970.

In Wisconsin, a recent study of 350 lakes by the Environmental Protection Agency found that fish in 80 percent of the lakes are in danger of being wiped out by acid rain. The recreation industry is vital to Wisconsin's economy and the destruction of our natural fishing resources would devastate that industry. The study results are described in a recent Milwaukee Journal article. I ask that the text of the article be inserted in the Record at this point. It follows:

ACID RAINS PERIL HIGH, EPA REPORTS

MILWAUKEE.—An Environmental Protection Agency study of 350 lakes in Wisconsin has found that fish in 80% of the lakes are in danger of dying out if acid rain continues.

The danger is far greater than expected before the study was started, according to Robert Glass, senior research chemist at the EPA Water Control Laboratory.

Acid rain is caused by automobile exhaust, burning of coal—particularly in power plants—and other sources of chemicals that react with water vapor to form sulfuric, nitric and hydrochloric acids.

The lakes in which problems were found were in Vilas and Oneida counties. A smattering of lakes with acid conditions were found in Lincoln, Taylor and Price Counties in the new survey.

NOT JUST PUDDLES

"They are not puddles or swamps, but lakes of 20 acres and larger," said Glass.

Only 15%, or 50 of the 350 lakes, had acid pH conditions that were harmful to fish under stress. That does not mean that the fish are dead or dying. In the pH range encountered, they no longer reproduce, he said.

The pH symbol used to measure the relative acidity or alkalinity of water. The scale runs from 0 to 14, and a pH of 7 is normal.

"I am not saying that these lakes are dead," Glass emphasized. He said that fish have not been caught in the endangered waters for 10 years, but that new fish are not being produced.

Research has not been done on the fish, themselves, Glass said, but the EPA wants federal authorities are trying to obtain money for a study of the effect of acid rain on fish.

BIGGEST SURPRISE

The biggest surprise was the 15% figure of threatened lakes, he said.

Researchers have found that an acid pH of 6 to 5.5 means that walleye and northern pike stop reproducing.

If the pH falls between 5.5 and 5.2, lake trout would no longer breed. If the pH of 4.5 is reached, fish eventually would die out.

The recent EPA study of the Boundary Waters Canoe Area of northern Minnesota found that about 66% of those clearwater lakes had acidity problems.

That is considerably lower than the 80% of troubled clearwater lakes in the Wisconsin survey.

Both surveys indicate that there are problems in regions where problem pollution are seldom expected.

BUILDUP CONTINUES

Acid rain, if it continues to fall, continues to build up in lakes. The ecological impact of acid rain on fish populations was not reported until recent years. It was found that acid conditions had caused ecological damage or fish kills in 15,000 lakes in Sweden and about 90 lakes in upper New York State.

There was a report this past summer by the International Joint Commission that all parts of the Great Lakes watershed were receiving snow and rain that was 5 to 40 times more acid than normal.

OTHER VULNERABLE LAKES

At that time, Stanley Kmietek, a DNR fish management specialist, said that most susceptible lakes were in Iron, Oneida and Vernon Counties because they already were very acidic.

Less acid, but still vulnerable, he said then, were some lakes in Washburn, Burnett, Sawyer and Polk Counties.

Another DNR specialist, William Threinen, said last summer that the lakes had only low levels of magnesium carbonates and alkaline calcium that are able to buffer the acids.

As a result, female fish may fail to spawn after acid rain buildups.

The obvious answer to the problem is lowering the amount of pollutants that enter the air, and eventually fall with rain.

That is a political problem.

MR. LEAHY. Mr. President, yesterday the Senate approved a massive, \$88 billion program to support the development of a synthetic fuels industry.

Synthetic fuels may very well play an important role in our energy consumption well into the next century. The production and consumption of synthetic fuels from coal and oil shale will also have a potentially profound effect on our environment, most notable in the form of air pollutants and acid rain.

If we are to push forward with our desire to accelerate the consumption of these fuels, we must take similar, if not more aggressive steps to protect our environment from further degradation—to protect the air we breathe, our water supplies, agricultural and forestry communities, and our wildlife. We must assess the potential for irreversible damage before we are faced with these losses.

Mr. President, I am pleased to join Senator Moynihan and our colleagues in cosponsoring this amendment.

As the United States moves to cut its consumption of imported oil, we must carefully weigh the environmental impact that these alternative fuels pose. Just as reduced energy consumption will affect our standard of living, the alternative sources being proposed can adversely affect our quality of life. The time for studying these impacts before we make the headlong plunge into synthetic and alternative energy production—a plunge we are now making as the world runs out of oil—is over. Mr. President, we have made significant progress in recent years in our battle for clean air and water. We must not lose sight of our goals as we explore and develop new energy sources. The push for synthetic fuels, the increasing use of wood and conversion from oil to coal, the most abundant fuel, poses many problems.

One of the least understood problems is "acid rain." Precipitation falling in the atmosphere absorbs airborne pollutants such as sulfur, nitride, and nitrate. In combination with water these compounds form acids that fall in rain and snow. These mild acids erode buildings, eat away metals and bleach the soil of nutrients. The impact on food production and timber harvests must be studied now. Some air pollution regulations have contributed to this problem. Particulate matter, with stack scrubbers, removes the grit that many of these pollutants attach themselves to. They now become airborne into the atmosphere where before they fell in soot. Stack height regulations have also contributed to the problem by giving these compounds a head start.

The acid rain problem is international and is already showing up in Europe, Canada, and many urban areas in the United States. The Northeast is particularly hard hit. New York has documented over 100 lakes in the Adirondack region that no longer support fish life. Acid rain has dissolved metals in the soil and washed them into streams and lakes retarding fish spawning. Neighboring New Hampshire is also uncovering such problems. In Vermont, there is concern being expressed by environmental officials but as yet no State program is studying the impact.

The second problem associated with synthetic and fossil fuels is the buildup of carbon dioxide (CO_2) in the Earth's atmosphere. The cause of this buildup is man's burning of fossil fuels, coal, gas, and oil. CO_2 is being released faster than plants and ocean life can absorb. The buildup is beginning to create a so-called "greenhouse effect" that eventually could raise the Earth's temperature as it traps the sun's heat closer to the surface.

The consequences of this problem could become acute within the next century. Raising the Earth's temperature to a high enough level could melt the "Southern Antarctic Ice Sheet" releasing a tremendous amount of water that could raise the ocean level by as much as 20 feet. Warming of the atmosphere would disrupt weather patterns, trigger droughts and affect worldwide food production.

The accelerated use of fossil fuels, the extraction of oil from coal and shale, and the production of synthetic fuels will increase CO_2 emissions. To remove carbon dioxide from exhausts takes almost as much energy as was originally produced. It is expensive and right now impractical. There are only two solutions, increase the biotic sink (plant more trees) and reduce emissions. These solutions are expensive long-range.

There are other problems associated with synthetic fuel production. The acid rain problem and CO_2 buildup need to be our two immediate areas of concern and action.

I am pleased to join with Senator Moynihan of New York in sponsoring this amendment to create an interagency task force on acid rain. This group would collect further data and would recommend steps to reduce the incidence of acid rain that adversely affects our crops, forests, and structures. The massive Federal synthetic fuel program must be studied because it would create new sources of pollution and emissions. While the short-term energy crunch could be alleviated

through this program, we must move with caution and knowledge of the consequences.

We have only one atmosphere from which to draw our needed breath. Let us not ignore our present progress in cleaning it up and let us not foul it up in the future.

Mr. MOYNIHAN. Mr. President, I believe there are no further Senators wishing to speak on the matter. Since the managers of the bill have accepted it, I move the adoption of the amendment as modified.

The PRESIDING OFFICER. The question is on agreeing to the amendment, as modified.

The amendment, as modified, was agreed to.

Mr. MOYNIHAN. I move to reconsider the vote by which the amendment, as modified, was agreed to.

Mr. JOHNSTON. I move to lay that motion on the table.

The motion to lay on the table was agreed to.

ORDER OF BUSINESS

The PRESIDING OFFICER. The question recurs on the amendment of the Senator from West Virginia.

Mr. ROBERT C. BYRD. Mr. President, I ask unanimous consent that my amendment continue to be laid aside temporarily.

I hope that Senators who have amendments will call them up. This is going to be a long day. I can say that with some belief that my prophecy will come true. I hope the Senators will come and call up their amendments and that the amendments will be disposed of as expeditiously as possible.

The PRESIDING OFFICER. Without objection, the amendment will continue to be laid aside.

Mr. ROBERT C. BYRD. It was a long day when Joshua commanded the Sun to stand still, but this is going to be another long day.

Mr. President, I want to protect Senators who have amendments. I do not want the Chair to put the question on third reading.

Mr. President, I suggest the absence of a quorum.

The PRESIDING OFFICER. The clerk will call the roll.

The assistant legislative clerk proceeded to call the roll.

Mr. JOHNSTON. Mr. President, I ask unanimous consent that the order for the quorum call be rescinded.

The PRESIDING OFFICER. Without objection, it is so ordered.

Mr. ROBERT C. BYRD. Mr. President, I do not mean to give carte blanche consent to lay my amendment aside. But as each amendment comes up, I would like to have the opportunity to determine at that point whether I continue to lay my amendment aside.

I ask unanimous consent that my amendment be laid aside temporarily to take up an amendment by the Senator from Wyoming (Mr. Simpson).

The PRESIDING OFFICER. Without objection, it is so ordered.

UP AMENDMENT NO. 747

(Purpose: To provide that the Corporation pay certain taxes)

Mr. SIMPSON. Mr. President, I send an amendment to the desk and ask it be stated.

The PRESIDING OFFICER. The amendment will be stated.
The assistant legislative clerk read as follows:

The Senator from Wyoming (Mr. Simpson), for himself and Mr. Wallop, proposes an unprinted amendment numbered 747:

On page 115, line 23, strike "and".

On page 116, line 5, strike the period and substitute "; and".

On page 116, insert the following between lines 5 and 6:

(3) the Corporation shall be subject to any mineral severance, sales or use tax levied or imposed by any State, county, municipality, or local taxing authority.

Mr. SIMPSON. Mr. President, I thank the floor managers of the bill for this opportunity to briefly state that I wish to review, briefly, an amendment offered jointly by myself and my very good friend and colleague (Mr. Wallop).

Senator Wallop has already clearly addressed the need to authorize State government the ability to assess mineral severance taxes on the mining and mineral extraction activities associated with enterprises directly or indirectly associated with the development efforts of the Energy Security Corporation; formerly the Energy Security Corporation now the Synfuel Corporation.

I endorse his statement completely. Creation of this federally chartered entity, such as the Energy Security Corporation, and I have deep reservation about the entire concept, raises complex constitutional issues of immunity from State and local taxation. I believe it was the intent of the Committee on Energy and Natural Resources—from reading the report—to structure this legislation in order that the tax base and revenue of State and local government would not be jeopardized by ESC projects.

My reading of the committee transcripts discloses the intention to exempt "intangible and incorporeal" interests of the ESC from State taxation. I do not profess to be an expert on taxation—only a consumer of it while serving here, and an expender—but certainly we should provide that State sales and use taxes shall be assessed on ESC activities. The assessment of a sales and use tax is the most efficient mechanism for generating "up front" revenue for the towns and counties where the social and economic impact from the construction of synthetic fuel projects will be most clearly focused.

I should like to share with my colleagues a recent experience that Converse County, Wyo., has had in dealing with a federally chartered corporation not at all unlike the nascent ESC. Recently, the Tennessee Valley Authority acquired 30,000 acres of uranium property in central Wyoming. Development plans by TVA called for the opening of several mines to service a central processing mill.

As a Federal entity, TVA was statutorily immune from State and local taxation. This peculiar twist of the law meant that not only would the tax base and revenues drop, but the bonded debt limit for the county and school district would also decrease. And all this to come at a time when the need would be most paramount to raise revenues to meet the increased demand for community facilities and social services to accommodate the population growth that would be engendered by the project.

I may tell you candidly that we are a State which welcomes responsible industrial development, and much of this synfuel develop-

ment will come in our State of Wyoming. We have all the natural resources that this country is searching for and this possible loss of local tax revenues was totally alienating public support for this project. Fortunately, the diplomacy, commonsense, cooperation and goodwill of State officials and TVA's officers and directors has very nearly resolved this issue. But the example stands and the precedent is there.

As it now stands, the ESC is exempt from State and local taxes except those assessed on real property. This provision is most helpful. But new plants will not go on the ad valorem property tax rolls until they are in substantial final stages of completion.

The purchase of the required heavy equipment, construction materials and fabricated industrial components for synthetic fuel projects will indeed be major commercial transactions. The ability to levy sales or use tax on these transactions will assure that revenue will be needed by State and local government may be secured when the need is at its very greatest—in the early construction phases where population impact is the most dramatic.

I feel we must provide the State and local government with all the tools to meet their needs and governmental objectives and not leave their hands behind their backs—an allusion my friend and colleague from New Mexico makes so well in these synfuels discussions.

Any other result might require that the Congress certainly be expected to make up the loss in local revenue that we will create—then only by direct payments from the Federal Treasury. I would like to avoid that. This method will guide us away from that result.

Mr. JOHNSTON. Will the Senator yield?

Mr. SIMPSON. Yes.

Mr. JOHNSTON. The Senator certainly means nondiscriminatory taxes, does he not?

Mr. SIMPSON. I do.

Mr. JOHNSTON. Would the Senator have any objection to putting the word "nondiscriminatory" there on line 4, right before "mineral" so that we could make it clear it is nondiscriminatory?

Mr. SIMPSON. Mr. President, I will ask the Senator the definition of nondiscriminatory as he states it, if he would share that with me. What is the Senator stating when he states "nondiscriminatory"?

Mr. JOHNSTON. I think in this context it would be relatively clear. It is not a tax which is not generally applicable. In other words, not a tax specifically designed for the project.

Mr. WALLOP. If the Senator will yield for a clarification on that, I have been working with the Senator and I think I can clarify what he means.

Essentially, what he is saying is the tax cannot be levied against projects of the Security Corporation alone in excess of what it would be by a corporation undertaking the same activity.

Mr. JOHNSTON. That is exactly correct. Nondiscriminatory would be used similarly to equal protection or due process.

The same kind of concept is that the States cannot make a special deal for these projects.

Mr. WALLOP. Projects of the Security Corporation, that would be the same kind of tax levied against other similar projects of the private sector.

Mr. JOHNSTON. That is right. But we want to make it clear we cannot define nondiscriminatory too carefully without reference to the factual context.

We do not want to allow the State to come in and say, as the Louisiana legislature used to do, any city above 250,000 population, and with the idea that was nondiscriminatory. But when we looked at the facts, we found out that applied only to the city of New Orleans.

So we mean nondiscriminatory here in the real sense of the word.

Mr. SIMPSON. If the Senator will yield and let me withdraw this particular amendment without prejudice to its later consideration, I understand the staffs are working on this issue and several other points that might be of clarification.

So, without prejudice, I move that this amendment be removed from the desk at this time.

Mr. JOHNSTON. I thank the Senator.

The PRESIDING OFFICER. The Senator has a right to withdraw the amendment.

The question occurs on the amendment of the Senator from West Virginia.

Mr. ROBERT C. BYRD. Mr. President, I ask unimous consent that there be a 1-hour time limitation on an amendment by Mr. Percy and that there be a time limitation of 30 minutes on any amendment to that amendment.

The PRESIDING OFFICER. Without objection, it is so ordered.

Mr. PERCY. Would that be the next pending business?

Mr. ROBERT C. BYRD. If the Senator gets recognition, yes.

Mr. PERCY. Could we ask unanimous consent?

Mr. ROBERT C. BYRD. Mr. President, I ask unanimous consent that the amendment by Mr. Percy be the next amendment, following the Jackson amendment, and that my amendment be laid aside temporarily.

The PRESIDING OFFICER. Without objection, it is so ordered.

UP AMENDMENT NO. 748

(Purpose : To authorize assistance for synfuel projects in the Western Hemisphere)

Mr. JACKSON. Mr. President, I send an amendment to the desk.

The PRESIDING OFFICER. Is there objection to setting aside the amendment of the Senator from West Virginia? The chair hears none.

The amendment will be stated.

The assistant legislative clerk read as follows:

The Senator from Washington (Mr. Jackson) proposes an unprinted amendment numbered 748.

Mr. JACKSON. Mr. President, I ask unanimous consent that reading of the amendment be dispensed with.

The PRESIDING OFFICER. Without objection, it is so ordered.

The amendment is as follows:

On page 140, after line 14, insert the following new section :

WESTERN HEMISPHERE PROJECTS

Sec. 179. The Corporation may use its authority for financial assistance pursuant to subtitle D for not more than two synthetic fuel projects located in the

Western Hemisphere outside the United States if the Corporation determines that (1) the project will cause a class of resource that is located in the United States but that such class of resource will not be subject to timely commercial production in the United States even if the Corporation provided assistance, or (2) the fuel produced will be available to users in the United States at prices and in quantities the Corporation determines to be equitable considering the nature and amounts of its financial assistance.

Mr. JACKSON. Mr. President, the amendment I am proposing would authorize the synfuels corporation to provide financial assistance for not more than two synfuel projects located in the Western Hemisphere but outside the United States. This authority could be exercised only if first, the project will use a class of resource that is located in the United States but that such class of resource will not be subject to timely commercial production, even with financial assistance from the corporation; or second, the fuel produced will be available to users in the United States at prices and in quantities which are equitable considering the nature and amount of the financial assistance.

Mr. President, as currently drafted, S. 932 limits the corporation's authority to projects located in the United States. I am in full agreement with this limitation as a general rule. However, I believe strongly that the corporation should have the authority to participate in a limited number of projects outside the United States which are located in the Western Hemisphere under the conditions provided by my amendment.

The tar sands and the heavier oils of the United States, Canada, and Venezuela dwarf the remaining recoverable reserves of ordinary oil in the world.

With these, there is no need for original exploration. But great financial, technical, logistical, and political problems do stand in the way of their exploitation. A beginning has already been made. Research ventures in unconventional oil processing are underway between Venezuela and the United States, Canada and Venezuela, and the United States and Canada. The Canadian private sector has done even more. We must now deepen and extend these initiatives without delay. Of course, these synfuel projects will be launched only if both parties believe them to be in their own national interest.

Mr. President, I recognize that some may argue that Federal assistance for synfuel projects should not involve any projects outside the United States. They will say, "Why should we risk our capital in a situation where if we have a successful project a foreign government may prevent us from reaping the benefits of it?" I would answer that we must recognize that the nations of the Western Hemisphere—where exporters or importers of oil—have a strong common interest in maintaining the security of the Western Hemisphere. Relationships among Western Hemisphere nations will not always be smooth. There is no doubt, however, that in the long run, our national interests far outweigh our differences. I believe my amendment will make it possible to foster these common interests.

Mr. President, I offer this amendment particularly in the context of the President's visit to Canada tomorrow.

Canada has developed a tremendous synfuel program. The two plants in Alberta are two of the largest of their kind in the world. I think Canada is an example—it is not confined to Canada—of how

country can be assisted by some of our technology, and at the present time we can be assisted by their technology and the developments that have been made there.

I hope the amendments will be agreed to.

Mr. DOMENICI. Mr. President, I ask the Senator from Washington this: In the bill as presently drawn, there is a phase 1 and a prospective phase 2. Are we talking about these two synthetic fuel projects being under phase 1?

Mr. JACKSON. In general, I should say. It is a general authority.

Mr. DOMENICI. But, as an example, if there are none in phase 1, then part of the comprehensive plan would include a recommendation that there could be up to two in phase 2.

Mr. JACKSON. Yes.

Mr. DOMENICI. But if two arrive on the scene in phase 1, there would be none left.

Mr. JACKSON. That is right.

Mr. DOMENICI. Second, these would not necessarily be GOCO's, would they? The private sector could build them.

Mr. JACKSON. They cannot be; they are not GOCO's.

Mr. DOMENICI. Then, why do we want to have the Corporation setting the price? Would not the price be set by the marketplace?

Mr. JACKSON. We do not set a price. It is set by the market.

Mr. DOMENICI. It says:

The fuel produced will be available to users in the United States at prices and in quantities the Corporation determines to be equitable.

I do not think the Senator really intends that, does he?

Mr. JACKSON. The point is that we are trying to determine an equitable price. It may not be the market price.

Mr. DOMENICI. I do not know why we need that.

If one is going to make a financial transaction that is economical in Canada, I think the company that builds it up there should determine the price. Why should the Corporation do that?

Mr. JACKSON. For example, just from a selfish standpoint, we want to be sure that the price situation is such that not all of it will end up in Canada. That is why there has to be some determination on price.

Mr. DOMENICI. I say to the Senator that we could do that by saying in the amendment that, as condition to the financial arrangement, the Corporation shall insist on an equitable share of the product for the United States.

Mr. JACKSON. That is all right.

Mr. DOMENICI. If we do that, I have no objection.

Mr. JACKSON. That is the purpose of it. That is the purpose of the amendment, so there will be equitable sharing. I think the colloquy here will cover it.

Mr. DOMENICI. If the Senator strikes the words "at prices," it will read appropriately:

Available to users in the United States in quantities the Corporation determines to be equitable, considering the nature and amounts.

Mr. JACKSON. Mr. President, I ask unanimous consent that my amendment be so modified.

The PRESIDING OFFICER. The amendment is so modified.

Will the Senator send his modification to the desk?

Mr. JACKSON. On line 9, strike "at prices and" after "United States." The modified amendment is as follows:

On page 140, after line 14, insert the following new section:

WESTERN HEMISPHERE PROJECTS

SEC. 179. The Corporation may use its authority for financial assistance pursuant to subtitle D for not more than two synthetic fuel projects located in the Western Hemisphere outside the United States if the Corporation determines that (1) the project will use a class of resource that is located in the United States but that such class of resource will not be subject to timely commercial production in the United States even if the Corporation provided financial assistance; or (2) the fuel produced will be available to users in the United States in quantities the Corporation determines to be equitable considering the nature and amounts of its financial assistance.

Mr. DOMENICI. With that, we have no objection.

Mr. JOHNSTON. Mr. President, the committee accepts the amendment. It is a good amendment, and we are glad to accept it.

The PRESIDING OFFICER. The question is on agreeing to the amendment, as modified.

The amendment, as modified, was agreed to.

Mr. JACKSON. Mr. President, I move to reconsider the vote by which the amendment was agreed to.

Mr. JOHNSTON. I move to lay that motion on the table.

The motion to lay on the table was agreed to.

The PRESIDING OFFICER. Under the previous order, the Senator from Illinois is recognized.

AMENDMENT NO. 576

Mr. PERCY. Mr. President, I call up my amendment No. 576.

The PRESIDING OFFICER. The amendment will be stated.

The legislative clerk read as follows:

The Senator from Illinois (Mr. Percy), for himself, Mr. Cranston, Mr. Armstrong, and Mr. Proxmire proposes an amendment numbered 576:

Beginning on page 106, line 1, through page 111, line 19, strike subtitle E, "CORPORATION CONSTRUCTION PROJECTS", and making conforming amendments striking references thereto throughout the bill.

Mr. PERCY. Mr. President, it is quite apparent to my colleagues that I have benefited from the discussion last evening in the Chamber. To remove the problems that some Senators felt were present in the technical amendments that were incorporated all the way through to change and clean up some of that language, I have simply stripped out those technical amendments and will leave it to the committee to make whatever technical changes might be necessary in the bill if this amendment prevails.

Mr. President, the element of Government ownership of synthetic fuels facilities, so-called GOCO's, has surfaced in the Energy Committee's version of the Energy Security Corporation. This is in spite of the fact that the strong support for the concept originally shown by the administration has been largely withdrawn. I see no real enthusiasm whatsoever in the administration for this concept.

I think they have been listening to many practical voices, many voices of concern. There are reasons to believe that this concept might even delay implementing the end goals of, which we all agree, may

some day lower our dependence on foreign oil. But GOCO's are, in my judgment, not the right way to go.

Synthetic fuel technologies will require massive amounts of money and considerable time before they can be brought into commercial application. Some of them may not prove commercially viable, and must not be allowed to become white elephants. GOCO's, however, would encourage white elephants. We know from the SST experience in other countries what an abysmal job governments typically do in commercializing new and untried technologies.

I can see a situation developing where a GOCO-run synthetic fuels plant, located in a particular congressional district, would be supported for political reasons long after economics called for the project's termination.

We have all seen this happen with military installations. Any time there is a Government installation, economic factors are not the key thing. It is the political impact which becomes solely important.

The question is, Should we allow all of these political factors with Government-owned corporations to intervene in an energy program when we really have one clearcut goal, the reduction of our dependence on foreign oil? Economics should reign, not politics. Yet we are creating a labyrinth of Government-owned corporations, whether it is 1, 3, 10, or 20. The minute you get them started, there is going to be a political momentum that develops to continue, not economic forces that force companies out of business if they are not doing well. Politics is going to reign, not economics.

This is why I have authored this amendment to delete Government ownership or operation authority from the Energy Committee bill. The basic development and commercialization of synthetic fuels in the United States should remain in the private sector.

Direct intervention by the Government will only further distort an already distorted energy market. The private sector, not the Federal Government, is best able to manage the commercialization of these new technologies. It is highly likely that only the private sector would be able to abandon a technology if it turned out that the chosen project is not as promising as it first appeared.

I believe that Government can play an important role by providing the private sector with a variety of economic incentives for the accelerated development of alternative fuel technologies. The establishment of GOCO's, however, would lead to excessive Government involvement and poor decisionmaking.

Mr. President, I am hopeful that my distinguished colleagues will support this amendment to remove Government ownership and operation authority from the Energy Committee bill.

Mr. President, I ask unanimous consent that the following Senators be added as cosponsors. In addition to my principal Democratic cosponsor, Senator Cranston, and Senator Armstrong and Senator Proxmire, I ask unanimous consent that Senators Hatch, DeConcini, Boren, Boschwitz, and Jepsen be added as cosponsors.

THE PRESIDING OFFICER (Mr. Inouye). Without objection, it is so ordered.

Mr. ARMSTRONG. Mr. President, will the Senator yield?

Mr. PERCY. Yes, I am happy to yield.

Mr. ARMSTRONG. Mr. President, I compliment the Senator from Illinois for the amendment. There is little that can be added to the well-reasoned and persuasive arguments which he has advanced in support of this amendment which I am proud to cosponsor.

I wish to make two observations:

First, yesterday a substantial minority of this body made it plain that we have very great reservations about this bill. By a close vote, the Senate declined to strike from this legislation the Energy Security Corporation, but it is obvious that here in the Chamber and around the country there are some serious reservations. I believe that if the Senate were to adopt the amendment, which has been brought to the floor under the leadership of the Senator from Illinois, it would go a long, long way towards quieting the fears which have been so forcefully expressed about the concept of this bill. So, for that reason, I hope it will be adopted.

Second, I emphasize and underscore the Senator's concern that having the GOCO fallback position could well slow down development of synthetic fuels in the private sector. So long as the Government is hovering in the background with even a fallback or a standby authority to get directly into the energy producing business, the temptation to drag our feet in fostering private sector initiatives will be very great and so we may actually impede rather than stimulate synfuel production.

So again I associate myself with the leadership of the Senator from Illinois and join with him in urging adoption of this amendment.

Mr. PERCY. I thank my distinguished colleague who is one of the early cosponsors. I know the Senator believes very deeply in the principle involved.

GOCO's could make this such a misleading venture. We are talking about Chrysler Corp., and \$1½ billion, in a known field that we have been in for years. What could be the cost if Uncle Sam is writing the check and we have all these so-called free windfall dollars pouring in on this synthetic fuel operation? The potential for waste and the potential for backing projects that are not economically sound is simply horrendous.

We are talking about potentially having 10 Chryslers on our hands.

I can point to countries like Italy that went that route. Italy, during World War II, took common stock holdings in companies it wished to give assistance. The United States, in contrast, gave debt assistance to troubled corporations. Italy took common stock; they ended up owning half of their industrial base. This slowed their economic recovery down 10 to 15 years.

Why do we now try to say there is only one way to solve our problems? Why do we copy the system of government ownership that has not worked all these years in other countries?

I am delighted to yield to my distinguished colleague from Utah, Senator Hatch.

Mr. HATCH. Mr. President, I would like to congratulate the Senator from Illinois, my friend.

Mr. PERCY. May I interrupt the Senator? I ask unanimous consent that my distinguished colleague, Senator Hatch, be added as a cosponsor, and also my distinguished colleague, Senator McClure.

The **PRESIDING OFFICER**. Without objection, it is so ordered.

Mr. HATCH. Mr. President, I want to congratulate the distinguished Senator from Illinois for this great amendment. I agree with everything he had to say. Anytime the Federal Government gets involved in any of these organizations, it seems we go to the inefficiencies of Federal Government and we ignore the efficiencies of the private sector that are, it seems to me, much better.

I commend the Senator from Illinois. I think that his amendment certainly should be supported, and I hope everybody does support it. If it is not supported on the floor of the Senate, I think we should all consider further steps that must be taken with regard to this bill.

I am very concerned. May I ask the Senator from Illinois what is his attitude with regard to Government-owned and Government-operated companies? Will the Senator's amendment go to that, or does it need to go to that, so that we can clear that up on the floor at this time?

Mr. PERCY. Government-owned and Government-operated would be even worse. I would tend to think at least in a company-owned plant you do have a vestige of the private management in the techniques they have developed in the private sector. But with Government-operated you have the same horrendous problem that we have in increasing efficiency and meeting market conditions because Government is too far removed from the market to really be sensitive to it. I feel that would be an even worse step.

Mr. HATCH. It is my understanding that the distinguished Senator from Illinois' amendment does not go to Government-owned and Government-operated companies with regard to the bill.

Mr. DOMENICI. Mr. President, will the Senator yield for a question? Is the Senator under the impression that this bill permits Government-owned and Government-operated?

Mr. HATCH. I am not, and I understand the administration is not going to advance it at this point; is that correct?

Mr. DOMENICI. The bill does not permit government-owned and government-operated, and I know of no amendment by anyone to expand upon the government-ownership contract-operated provisions.

Mr. HATCH. I think that clarifies the matter. That is my understanding of the purpose of the bill.

Mr. PERCY. The purpose of the Senator from Illinois' amendment is to make impossible both types, government-operated and contractor-operated as well.

Mr. HATCH. That is my understanding, and I am glad it has been brought out on the floor.

I commend the Senator for the amendment he brought forth. I certainly support it and I ask all of my colleagues to do likewise.

Mr. PERCY. Mr. President, I ask unanimous consent to add Senator Wallop as a cosponsor.

The **PRESIDING OFFICER**. Without objection, it is so ordered.

Mr. PERCY. I reserve the remainder of my time, Mr. President.

The **PRESIDING OFFICER**. The Senator from Louisiana.

Mr. JOHNSTON. Mr. President, if you made a list of Senators of from one to a hundred ranked according to who loves the oil companies most or more properly who hates them the least, I would certainly be on the top or bottom of this list, depending on which is more appropriate.

But, Mr. President, if we eliminate the possibilities of GOCO's, let me tell every Member of this body that in the context of this bill it could make it a very bad deal for the American public and a very sweetheart deal for principally big oil companies.

Let me tell you why, Mr. President. We have given to this corporation appropriate but very sweeping powers. First of all, we invest the Corporation with \$19 billion in budget authority, plus another \$1 billion to be in the Department of Energy for biomass, but in this corporation itself \$19 billion. We give them a mandate to put on line the most promising of the one-of-kind commercial demonstration technologies so that they will have the money, they will have the mandate to go out and get the plants built.

The reason we have wanted this corporation is not only because of the skill of the people, their business judgment, their experience, but because we can give them a mandate, insulate them from changes in politics, and tell them to get the job done. That is what we want.

But the obverse side of that, Mr. President, is that we do not want to put the corporation in a position to have to accept the first deal they are offered by, for example, Exxon. I do not mean to use the word "Exxon" in a deprecatory sense because I think that big oil companies do a great job for this country, and I do not cry as much as my colleagues when they make big profits. I cry more for Chrysler when they make no profits.

Nevertheless—

Mr. PERCY. Mr. President, will the Senator yield for a question on that point? Will it not still be possible for the Government to enter into joint ventures?

Mr. JOHNSTON. I will address that in just a moment.

Mr. President, Exxon, for example, is what you might call the owner of a process called Exxon donor solvent, which is a coal liquefaction process. They are further along than anybody else. It is a good process, and I think it may well be one of those processes that ought to be demonstrated by the Synfuel Corporation.

What we want to do is give the members of the board of this corporation the power to sit across the table with, for example, Exxon and work out a tough-minded deal that will get that process, if it is appropriate, built and demonstrated on a commercial basis for the American people.

But what happens, Mr. President, if Exxon says, "Your deal is not good enough. Our corporation knows it is not good enough, and know it can make a profit with it." They simply say, "No deal. You play according to our rules, according to our prices, or you do not get a deal."

What we want to have, Mr. President, is the possibility of a GOCO, a Government-owned, company-operated plant.

Call it an ace in the hole or a club in the closet as a bargaining chip available to this Corporation so that if all else fails they have the possibility of demonstrating the commercial technology through the GOCO.

We make it very difficult indeed to get a GOCO demonstration. In the first place, we set up a hierarchy of the kinds of financial assistance that shall be given to the private sector. A preferred list of priorities. At the top are price guarantees; the second are loan guarantees, and

then you come on down the list, to loans, completion guarantees, joint ventures, and at the bottom of the list is GOCO. Under the Bentsen amendment adopted yesterday they will have to advertise notice of any GOCO plan in the Federal Register, and I believe it is a period of 30 days that must go by before they can make a deal. So there are all kinds of injunctions and mandates to the corporation not to go in the direction of GOCO unless all else fails and unless the technology needs to be demonstrated.

Mr. CHILES. Mr. President, will the Senator yield?

Mr. JOHNSTON. Yes; I yield.

Mr. CHILES. I was listening to the comments of the Senator from Utah (Mr. Hatch) and the Senator from Illinois (Mr. Percy) about the inherent evils of Government-owned company-operated plants. I certainly would be against that as a normal thing. It seems that is the way it is as opposed to private enterprise.

But if my memory serves me a little bit—and I was kind of at a tender age—in World War II when we were trying to get this country producing rubber synthetically, and when we were trying to make cannon shells, and we were trying to produce all kinds of other materials for the war effort, did we not have something like these plants at that time?

Mr. JOHNSTON. This country has a long and rich history with respect to GOCO's. For example, going back to World War I, take the U.S. Shipping Board Emergency Fleet Corporation, for example. We were in a deficit situation with ships, as the Senator will remember from his history books. Because we had been observing the shipping conventions, maritime treaties and because our opponents had not, we had to get some ships built, and built quickly. So we gave that corporation \$2.5 billion and told them to do the job, and they did it.

Other examples are the War Finance Corporation in 1918; Amtrak; COMSAT; and the Reconstruction Finance Corporation. Now, that was in 1932 and I know it was well before the Senator was born, but the RFC started in 1932 and spent \$54.4 billion, and many of us think it got us out of the depression. So, yes, there are plenty of them.

Mr. CHILES. What happened to those plants in World War II that were Government owned and privately financed, or Government owned and Government operated? As soon as the emergency was over, the war was over, I do not remember a lot of those continuing in Government ownership. It seems to me that those were converted over or sold to private companies.

I remember early on reading that we could not get a sale for certain ones, those that were still making cannon shells, because nobody wanted to buy them. Aside from that, did not most of those plants all go to the private sector?

Mr. JOHNSTON. The Senator is correct.

Mr. CHILES. The Government does not own any rubber plants today, does it?

Mr. JOHNSTON. No. There are some GOCO's still in existence. For example, in the munitions field.

Mr. CHILES. In the munitions field; but that is where there were not any private seekers.

Mr. JOHNSTON. The Senator is correct. Virtually all of these operations have gone back to private enterprise. The GOCO approach is

taken only in unusual circumstances. But in virtually every circumstance, which called for this extraordinary action, it has been done with success.

I think it is particularly appropriate here, not because we want to move in their direction. Frankly, I hope we do not get a single GOCO built. I hope private enterprise is there to respond to the generous, but not overly generous, subsidies available under this bill.

But I do not want to subject this country and this Corporation to an exorbitant holdup by any American corporation. And that is what we are going to do.

Mr. CHILES. The Senator said American corporation. That holdup could be by multinational corporations, could it not?

Mr. JOHNSTON. Absolutely.

Mr. CHILES. Not just an American corporation?

Mr. JOHNSTON. Absolutely. I want a tough-minded bunch of corporation members to be able to go into a bargaining session with a full deck, so that they are on an equal basis with large companies. I keep using the example of Exxon, only because they happen to be one of the companies that has a process that we probably want to develop. I want this corporation to be able to look at Exxon eye-to-eye on an equal basis.

Mr. CHILES. But you want them to look Shell in the eye, too?

Mr. JOHNSTON. I want them to look Shell in the eye, too.

Mr. CHILES. It is not exactly an American corporation.

Mr. JOHNSTON. And any other companies.

Mr. CHILES. Or British Petroleum?

Mr. JOHNSTON. Sure; all of them.

Because otherwise, with the power and the mandate we give this corporation, they are likely to get skinned; not on purpose, but simply because they do not have the right cards in their deck.

Let me say one more thing, Mr. President. The distinguished Senator from Illinois asked about joint ventures. Under our joint venture language, such ventures are restricted to synthetic fuel modules. Now, a module is something less than a commercial demonstration. That is where you have a technology that is not ready to go into full swing. It is not a 50,000-barrel-a-day demonstration. It might be, for example, in the case of oil shale, a 5,000-barrel-a-day demonstration as opposed to commercialization.

Further, under the bill you may have a joint venture for the module only if it can, at the same time, be expanded into a synthetic fuel process. So the joint venture is a different concept at a lower level than full commercialization. It is no answer, I think, to the GOCO.

I would hope that the distinguished Senator from Illinois would, perhaps, agree with us in this matter, understanding that we do not want GOCO's to be built. But we want to vest this corporation with bargaining strength; with a full deck at the bargaining table, so they can extract the best deal for the American people.

I hope the Senator will look at it in that light, and while he is thinking about it also consider that his amendment is subject to a point of order, which we are very reluctant to make. I hope we can work this whole matter out.

Mr. President, how much of my time is remaining?

The PRESIDING OFFICER. The Senator has 18 minutes remaining. Mr. DOMENICI. Will the Senator yield 5 minutes?

Mr. JOHNSTON. I yield 5 minutes to the distinguished Senator from New Mexico.

Mr. DOMENICI. Mr. President, let me say to my good friend from Illinois and those who are cosponsors of this amendment that I certainly do not want the Federal Government to be involved in an ownership or equity position in the first phase of synthetic fuel development to any extent other than that which might be absolutely necessary to accomplish the goals and purposes of the bill.

I believe, with the adoption of the Bentsen amendment and the language in the bill, which is found on pages 78 and 79, it is absolutely clear that it is the intention of the committee that we not have any GOCO's unless there is absolutely no way to get the diversification and the technology with all of the other tools available. The Bentsen amendment makes that even clearer.

Second, there is a prohibition against any of them being involved in phase 2. We are only talking about phase 1.

Now, there is a problem that we should address, and that is the way the bill is drawn. The three that I have just described, kind of last-option, "only-way-to-get-done" proposals, is not the only way to get GOCO's in phase 1. Because there is language that says if more are deemed necessary the Corporation recommends them, and then Congress has the right to veto.

Now, what I am going to do, and the Senator from Louisiana agrees is offer an amendment here shortly, not in any way to deny the Senator from Illinois an up-or-down vote on his amendment, but I will offer an amendment striking that optional language, and thus the bill will unequivocally be for three only, under those extreme circumstances, which are kind of "if ever, probably never" sort of circumstances.

I want to say, from my standpoint, in the debates in committee I favored GOCO's under extreme circumstances. I thought it best to have Congress pass them, even as to three. I believe, however, with the Bentsen language, with the clear formula in the bill as to the previous things that must first be used, that we ought to leave the option there in phase 1, which is demonstration, bring an board commercial in a demonstration manner, prohibit anything beyond it, and continue the prohibition in phase 2, which is the American broad-based commercialization of synthetic fuels.

I am positive that if this program proceeds right, if energy continues as scarce as it is—and I see no abatement—if the price of crude oil continues to rise—and I see no relief from that—we will be able to demonstrate each of these technologies with the private sector making a fair and square deal with this corporate board, without us ever needing GOCO's.

I cannot support the Senator's amendment. I will offer one to make it absolutely impossible to go beyond the three, and I think we are adequately protected. I commend the Senator from Illinois for raising the issue. I think it is one that all Senators should vote on and express their views. I think it is not unheard of; it is not unprecedented.

I do not believe the private sector ought to be fearful. We need this corporation to get these started. If it works, the private sector will

have a brandnew industry that they can be involved in, and we will have tried the technology for them.

Mr. JOHNSTON. Mr. President, the distinguished Senator from Illinois has proposed an amendment. The distinguished Senator from New Mexico has proposed a compromise which, when read in tandem with the amendment of the distinguished Senator from Texas adopted yesterday, goes, I think, most of the way in the direction being taken by the Senator from Illinois. I would hope that he would take the suggestion of the distinguished Senator from New Mexico in that light. Under that set of circumstances, as to the compromise offered by the Senator from New Mexico, I would be happy to accept that. We can avoid the point of order and we can tie the whole thing up into a neat little package. I hope we can do so.

Mr. Metzenbaum addressed the Chair.

Mr. JOHNSTON. Will the Senator withhold to see if we are going to get an affirmative answer?

Mr. PERCY. Mr. President, my comments will be very brief. I think your question, Senator Johnston, is a question of principle, really.

In the bill we are already limited to three projects. In section 142 during phase 1 up to three such projects could be authorized.

I will come back to this, after Senator Metzenbaum has finished his comment, as to why I feel very deeply.

This is the wrong path. It would really mislead us. It would create all kinds of problems for the Energy Committee. Obviously, the goal the Senator has ahead of him, and the job that lies ahead of him, will take a lifetime.

I appreciate the fact that we can have an up or down vote. I think it will send a message to the Department of Energy as to how many Senators feel strongly on this subject.

Should my amendment pass, we would then have an effective limitation. Those administering these programs will be extraordinarily cautious before going ahead with GOCO's. We will be putting tight guidelines on them and not letting them run away with this.

I prefer to have an up and down vote. I appreciate the fact that we can.

I would be delighted to hear from Senator Metzenbaum on the time of the Senator from Louisiana.

Mr. JOHNSTON. I yield 5 minutes to the distinguished Senator from Ohio.

The PRESIDING OFFICER. The Senator from Ohio.

Mr. METZENBAUM. Mr. President, I know of no issue in this bill that has had more working over, more amendments, and more consideration by the Energy Committee than this particular aspect of the bill. I well understand the concern of my friend from Illinois who expresses himself on the whole question of a free enterprise system and whether the Government is going into business.

The fact is that because there were many members of the Senate committee who were concerned in the same manner that the Senator has indicated he was concerned, there were great limitations put upon the bill.

Senator Bellmon's amendment provided that only after all other incentives have been tried can there be GOCO's. Senator Bentsen's

amendment provided only after notice of intent has been published with 30 days for response. Senator Domenici's provided no more than three without congressional approval, and we know he is about to offer an amendment to limit it to three, period, without a new act of Congress.

Actually, the issue is, How are we going to develop the synthetic fuels of this Nation? I say to Senator Percy that is the most challenging aspect of the entire legislation. Can we do it? If so, how can we do it? We all know we have to have synthetic fuels developed.

I never thought I would be on the floor of the Senate speaking on behalf of the Columbia Gas Co., which is the world's largest independent natural gas producer, seller, marketer. I have in my hands a letter from the Columbia Gas Co. of Ohio in which they are urging us to keep the GOCO's in. They write as follows:

As you know, the Senate will begin floor consideration of the synthetic fuels legislation next week. Columbia Gas of Ohio supports the Energy and Natural Resources Committee bill particularly because it provides for GOCO's if the other forms of financial assistance prove inadequate.

They go on to say:

We believe GOCO's are vital in the development of commercial-scale plants to turn bituminous coal into pipeline quality gas.

The interesting thing about this is the fact that the Senator from Illinois represents a State that has much of the inventory of bituminous coal in this Nation, and we are talking about making that bituminous coal available for conversion into natural gas.

Columbia Gas addresses themselves to this issue and says:

Commercial gasification of bituminous coal has not been accomplished, and will not be accomplished, on the basis of loans, loan guarantees, price guarantees, or purchase commitments alone.

GOCO's hold the most promise for breaking the bottleneck now precluding commercial gasification of bituminous coal, just as they successfully led to development of synthetic rubber during World War II.

The Senator and I represent two of the major States in the Nation which have bituminous coal resources. I am not sure whether Columbia Gas serves the Senator's State or not. It is the major marketer in my State. Here is this company, certainly a major factor in the entire business community, telling us that they need GOCO's if they are going to be able to get natural gas as a result of the conversion of bituminous coal.

I believe this is the only road we can go. I believe the Senator from Illinois has a concept and a concern which has been well expressed. But having said that, I think it is an imperative from the Senator's own State standpoint that his amendment be withdrawn. I think it would be wrong to a company such as this one, actually the largest natural gas company in our Nation, telling us that it will not be produced unless you have GOCO's, that the private sector is not in a position to provide the funding for it.

That, I believe, is why the GOCO's are so important. Not many, but enough to provide the possibility that we can develop synthetic fuels that we need so badly in this Nation and that we will not have unless we have the GOCO's.

In addition to that, the remarks of the Senator from Louisiana certainly were most persuasive, that this gives us a negotiating tool, a

means of dealing with those who are interested in developing their technologies, and gives some form of protection in the negotiating process to the American people.

I say to Senator Percy that I think in the interests of Illinois and in the interests of the Nation, I would truly hope he would consider withdrawing his amendment.

Mr. President, I ask unanimous consent that the letter to which I referred as well as the supporting documents be printed in the Record.

There being no objection, the material was ordered to be printed in the Record, as follows:

COLUMBIA GAS OF OHIO, INC.,
Washington, D.C., November 1, 1979.

Hon. HOWARD METZENBAUM,
Russell Senate Office Building
Washington, D.C.
(Attention of Mark Messing).

DEAR SENATOR METZENBAUM: Attached is a paper discussing Columbia Gas of Ohio's reasons for supporting the government-owned, contractor-operated (GOCO) provisions of S. 932 as reported by the Senate Energy and Natural Resources Committee.

As you know, the Senate will begin floor consideration of the synthetic fuels legislation next week. Columbia Gas of Ohio supports the Energy and Natural Resources Committee bill particularly because it provides for GOCOs if the other forms of financial assistance prove inadequate. As the attached paper outlines, we believe GOCOs are vital to the development of commercial-scale plants to turn bituminous coal into pipeline-quality gas.

I urge you to support the Energy and Natural Resources Committee bill and oppose any efforts to delete or weaken its GOCO provisions.

Thank you for your consideration. If you have any questions concerning our position please don't hesitate to contact me.

Sincerely,

DANIEL R. HELMICK,
Manager, Federal Governmental Affairs.

ISSUE PAPER—GOCO'S ROLE IN SYNFUELS LEGISLATION

Bituminous coal represents approximately 70 percent of the nation's coal reserves, a strategic resource the nation must utilize if it is to reduce dependence on imported oil. The key is the effective development of commercial gasification of bituminous coal.

Commercial gasification of bituminous coal has not been accomplished, and will not be accomplished on the basis of loans, loan guarantees, price guarantees or purchase commitments alone.

Substantial up-front financing in the form of self-terminating government-owned contractor-operated provisions (GOCOs) are necessary to absorb the considerable risk inherent in determining the most effective technology for commercial scale demonstration of bituminous coal gasification.

Bituminous coal is medium hard, sticky and tends to clog up Lurgi gasifiers which are best suited to western coals. New technologies (2nd or third generation) will be required for the effective gasifying of bituminous coal on a commercial scale basis.

The chance that any one such project will fail is significant and the costs substantial (approximately \$2 billion). Thus, these projects are beyond the means of all but the few largest corporations.

GOCOs hold the most promise for breaking the bottleneck now precluding commercial gasification of bituminous coal, just as they successfully led to development of synthetic rubber during World War II.

CONCLUSION

1. The Senate Energy Committee bill should be enacted with its present GOCO provision.

That provision makes GOCOs available only if other forms of financial assistance are inadequate to enable the Synthetic Fuels Corporation to meet Congress' production goals.

It limits them to three, unless Congress should specifically approve more.

2. If retention of the complete GOCO provision is impossible, it should be retained for biomass and pipeline quality coal gasification on a commercial scale demonstration basis. This could be accomplished by changing Sec. 141, as follows:

SUBTITLE E—CORPORATION CONSTRUCTION PROJECTS

CORPORATION CONSTRUCTION AND CONTRACTOR OPERATION

SEC. 141. (a) Subject to the requirements of sections 122(a)(1)(D) and 142, the Corporation is authorized to own, and shall contract for the construction and operation of commercial scale demonstration plants for pipeline quality coal gasification and for biomass (hereinafter referred to as a "Corporation construction project"); *Provided*, That, prior to the adoption of a comprehensive strategy pursuant to section 122 (b) and (c), the Corporation may undertake such contracts only if, in the judgment of the Board of Directors, the Corporation construction project is necessary to meet the objectives of section 122(a)(2) and would not otherwise be constructed pursuant to subtitle D.

The PRESIDING OFFICER. The Senator's time has expired. Who yields time?

Mr. PERCY. Mr. President, I yield myself such time as I may require.

I would like to first answer one of the arguments raised by Senator Johnston. Senator Johnston mentioned the Exxon donor solvent program, and he could not have raised a better argument to support the position of the Senator from Illinois. This was never done in a GOCO. This was a process developed through Government-industry cooperation partially funded by the Senate Energy Committee and carried out through DOE. That is exactly the kind of project that I think can and should be done and would be done, but you do not need a GOCO for that.

My distinguished colleague from Ohio (Mr. Metzenbaum) has made reference to the effects on my home State. I have very much in mind those 19,000 coal miners and the huge deposits of coal. What I have in mind also, as the Senator well knows, is the direct use of coal. We ought to mandate that 119 public utility boilers be directed to convert over to the direct use of coal and away from gas and oil. That would help a tremendous amount, the equivalent of a million barrels a day being saved, I think, before 1990.

What we need is more direct usage.

If a synthetic fuel appears to have the possibility of a market, there is no lack of private enterprise ready to go to work. It may require some Government grants and help, and assistance with technology, all of which the Department of Energy is prepared to do.

Coal gasification in the State of Illinois, mentioned by the Senator from Ohio, is something we are very much interested in. But we are simply saying that we would much rather have a private sector company than a Government-owned company in the State of Illinois. We would much sooner have the consortium of German manufacturers who are now making a presentation to the city of East St. Louis, for whom we made a presentation to the Department of Energy. It would not require a Government corporation—Germany is willing to bring into Illinois all the technology and know-how they have built up over a score of years to build a gasification plant there. We are not asking for a Government-operated facility or a Government-owned facility.

Also, Food Machinery Corp., now known as FMC of Chicago, has put together a consortium of companies that are making a similar bid, as is an Ohio group, I hope both of them can be awarded contracts to go ahead in the private sector, using American technology and know-how, in the coal gasification field.

I do think, Mr. President, that we have every possibility to move ahead. I concur with the conclusions of the Committee on Banking. They unanimously opposed granting authority to Government construction for synthetic fuel plants, even as a last resort. I served on that committee for many years. The men who serve on that committee are men who have looked at the problem with extraordinary care. They concurred that there should be a vast limitation on GOCO's. The Energy Committee has agreed to some restrictions. The only difference is whether we have no option for Government plants, so that all the incentive is given to the private sector to move ahead with Government help and assistance, or whether there is going to be a potential for, possibly, three plants. Who gets those three plants, what States get those three plants, what goes into those three plants, how significantly can those three Government-operated plants operate, and what will the eventual cost be?

There is a risk, with a government-owned plant, that we are going to go into a process when everyone else has turned it down.

We must ask if the taxpayers of this country should be asked to take a risk that no one else in the country will take. I think it is wrong to make them take that risk and, at the same time, tell them we are creating an industry which will be sensitive to market pressures.

Also, I think we have to be very concerned about the fact that Government construction would transfer the cost and technological risk from private venture to the Government, even if we do limit it to three plants. It simply removes the program from the primary question that should be looked at: What are the market forces? Again, market forces have been used to stimulate one area that is moving ahead now with tremendous speed in synthetic fuel. That is gasohol. Illinois is the leading State in the Union—not as a government-operated program at all. Archer-Daniels of Decatur, Ill., has gone into it because the Government has provided some of the incentives.

The amendment that I put in, that was accepted, exempted any gasohol of a 10-percent blend from Federal taxation making 4-cents of difference in the cost structure. That showed that the Government symbolically wanted to do everything it could to encourage gasohol. We can do other things to stimulate it and if we do, there will be plenty of companies coming into that field. Archer-Daniels is not going to be in there alone. There are other companies moving in.

Shell Oil, 6 months ago, during a tour of their research laboratories, told me that their top management was not interested in gasohol. That is the same thing Standard Oil of Indiana had told me. They are now taking a look at it. In 6 months, Standard Oil has moved in. And Shell Oil has said they are going to take a whole new look at this.

Archer-Daniels is not going to have this field alone because the process is profitable, it is marketable, and the product can be gotten out.

Not a Federal penny, really, of the construction costs, bricks and mortar, will have to go into that field. The same thing can happen in other areas.

The reason I dislike Government operation so much is that when the Government accepts the ultimate risk, it reduces the incentives for efficient operation. The Banking Committee came to this conclusion: The incentive is removed. I should like to read, finally, a quote by Alice Rivlin, Director of the Congressional Budget Office, who testified on this very point:

If the Federal Government itself were to build these plants, it would then absorb all the risks—that is, the technological and cost risks, as well as the risk associated with any future changes in OPEC prices. This would give contractors less incentive to build the most cost-effective plants, since no private sector money would be at risk. Overall efficiency would, therefore, be reduced.

Finally, a report prepared for the Senate Budget Committee by ICF, Inc., discussed this same problem. It said:

The President proposes to allow the ESC to initiate GOCO's as a last resort. GOCO's contradict every one of the guidelines just cited from the MIT work. The demonstration would be removed from the normal workings of the private sector; project managers (most likely working on a cost plus fixed fee basis) would not be subject to serious market or cost reduction pressures, and full federal financing would provide no information about the likely financing cost for a commercial project . . .

Finally, Mr. President, on a lot of the decisions that we make on this floor we can ultimately determine whether we made the right decision. We shall have a chance in time to determine who was right in this case. Certain, even if this amendment does not prevail, I would enthusiastically support any further tightening, any further limitation on GOCO's that we can do. We are all concerned about this.

Let us admit it, we are all concerned about going down this path. The administration, originally for it, now really has totally retreated from it. I think they just do not want any part of it. I think for that reason, we want to approve this amendment.

By proposing this amendment, I in no way wish to detract from what I think is a magnificent job the Energy Committee has done. I do not think anybody in the country realizes the time and effort that have been committed to solving this problem. We have some of the best minds and the best men and women that I have known working on this problem in the Senate of the United States. We just disagree on this particular point. But I do not want that to detract a bit from my deep appreciation for the work of my distinguished colleagues, particularly those managing this bill, Senators Domenici and Johnston, and the rest of the subcommittee.

The PRESIDING OFFICER. Who yields time?

Mr. JOHNSTON. Mr. President, how much time remains?

The PRESIDING OFFICER. Seven and one-half minutes.

Mr. JOHNSTON. I yield myself 4 minutes, Mr. President.

Mr. President, the distinguished Senator from Illinois has said that we should let market forces work their will in synthetic fuels.

Now, nobody is taking that approach today, not even the Banking Committee. The Banking Committee proposed some \$3 billion worth of financial assistance, which is far from market forces.

The fact of the matter is that, left to market forces, it has been 52 years since the Federal Government built the first two experimental retorts in oil shale near Rifle, Colo. Fifty-two years later, we have no commercial demonstration at all.

The fact of the matter is that there must be Government involvement.

The House bill, the Banking Committee bill in the Senate, and the Energy Committee bill, all recognize that.

If market forces could do it, Mr. President, we would not be proposing this legislation. We not only want it to be done, but we want it to be done as quickly as possible in phase one. Phase one being one of a kind commercial demonstrations, about 10, perhaps 12, in number.

Mr. President, I wish the distinguished Senator from Illinois would look down the list of possible candidates and note the possible candidates, I just name one. Exxon's donor process is more or less the property of one company.

It is not true with every process, but in many of these areas we have, in effect, a process, a technology, developed by one company.

Another example that is high in the news now is the SASOL company's Fisher-Tropsch process now in use in South Africa. They have developed and pioneered the process. They have a commercial demonstration. They are moving now into a second phase of commercial demonstration.

Mr. President, why then a GOCO? Because when our Corporation sits down across the table from Exxon and Exxon says, "Yes, we are anxious to build our process, but we insist on a loan guarantee of 90 percent and we insist on a price guarantee of \$100 a barrel," I want our Corporation to be able to say, "Well, please do not give me an offer I cannot refuse. Please do not give me a take-it-or-leave-it proposition." I want this Corporation to have the ability to say, "Well, if you will not make a reasonable offer, then we will do it, because it is a process that needs to be developed."

That is what this is all about, Mr. President, not that we want the Government to build the GOCO's. I hope there is not a single GOCO built. But if we do not have the possibility of a GOCO, we are going to severely deprive this Corporation of its bargaining power. That is what this is all about. Bargaining power.

Mr. President, I am willing, as the manager of the bill, to accept the Domenici amendment, the Domenici compromise just mentioned, where we will limit this to three GOCO's with no possibility of any other GOCO's.

I know the Senator wants a vote on his amendment, but it is subject to a point of order.

The PRESIDING OFFICER. The time has expired.

Mr. JOHNSTON. Mr. President, I yield myself 1 additional minute.

I would ask the Senator to consult with the Parliamentarian who will advise him that the point of order is well taken. In that spirit, both of compromise and of parliamentary exigency, I hope he will join with us, lock arms and march into the sunset, in agreement on the matter of the GOCO's.

Mr. PERCY. I hope my distinguished colleague will not ask for a point of order on the amendment. I think that although it is an issue

was argued in the committee, there are many Senators who feel
agly about it. I would hope the distinguish Senator would give the
ste a chance to have the same kind of vote the committee had.

I have already indicated, if this amendment fails, the Senator
Illinois will fully support the amendment of the distinguished
tor from New Mexico (Mr. Domenici) to limit it to three.

THE PRESIDING OFFICER. The Senator's time has expired.
Who yields time?

Mr. PERCY. How much time has the Senator from Illinois
in?

THE PRESIDING OFFICER. Two minutes and thirty-four seconds.

Mr. PERCY. Mr. President, I ask for the yeas and nays on the
amendment.

THE PRESIDING OFFICER. Is there a sufficient second? There is a
sufficient second.

The yeas and nays were ordered.

Mr. DOMENICI. Will the Senator from Louisiana yield me 1 minute?

Mr. JOHNSTON. Yes.

Mr. DOMENICI. I hope the Senator from Louisiana will not press for
point of order. I believe the distinguished Senator can make an
amendment not subject to a point of order that will accomplish the
goal.

I think we would be wasting time. Those of us who want an oppor-
ty to vote should be given that chance.

I want to make clear that the amendment which I suggested to
Senator, and have cleared with most members of the committee,
ly makes it absolutely clear that in phase 1 and phase 2, all com-
d, the entire American program, as promoted by this bill, will
only three GOCO's possible under the most stringent
instances.

That is what my amendment will do, delete any language that in-
tes under some other circumstance we may have more pressure
scribed on Congress, not vetoing a plan. They are all gone. There
way under mine but for the three.

But that does not take care of the issue of whether we should have
possibility of three, or not. I think we ought to let the Senate vote
that issue. I hope the Senator from Louisiana will do that.

THE PRESIDING OFFICER. Who yields time?

Mr. JOHNSTON. Mr. President, I will not press the point of order.
The distinguished Senator from Illinois has importuned me as to the
ortance of letting the Senate express itself on this amendment.

I would just urge the Senate in the strongest possible way to defeat
Percy amendment because, otherwise, Mr. President, we are going
enude this corporation of that essential bargaining power which it
is.

The Percy amendment completely strips out of the bill any au-
ity whatsoever, even the possibility of a GOCO. If that happens,
are going to subject the Corporation and, in turn, the American
lic to being taken to the cleaners, to have to pay exorbitant loan
rantees, or exorbitant price guarantees.

Remember, Mr. President, we have given this corporation the mandate to go out and put on line the most promising of the synthetic fuel technologies.

Without this bargaining power, Mr. President, we can just expect the market forces to work. The companies that own these technologies will try to get the best deal they can, and that is going to be a sweet-heart deal unless we have the possibility of a GOCO.

The PRESIDING OFFICER. The Senator's time has expired.

Mr. MUSKIE. Mr. President, I cannot support the Percy amendment to bar the construction of synthetic fuel facilities by the Synthetic Fuels Corporation.

I would like to reiterate some of the thoughts I have about the concept of a Government corporation, as well as the concerns I have about the structure of the corporation authorized in the pending legislation.

The establishment of a Government corporation to build a few "yardstick" plants is worthy of consideration, particularly in the synthetic fuels area.

A Government corporation with all of the powers inherent in a private corporation could play an important role in the development of synthetic fuels. This kind of corporation would inject important social, economic, and environmental objectives into its decisionmaking that would not necessarily be present in a private enterprise.

The corporation construction projects would provide the Government with full information on all aspects of the development of these new technologies. This would then provide a yardstick by which to measure proposals for private construction and requests for financial support from the private sector. These requests could be measured against the Government's own experience with its own plants.

Unfortunately, the kind of corporation and the kind of Government construction projects available in the Energy Committee bill do not contain the characteristics I have discussed. A Government construction project would not be allowed unless all other means of bringing the project into construction had failed. In other words, the Government would be given the right to build the projects most likely to fail, and be barred from construction facilities when private interests would undertake such projects.

I fear that this limitation may result in Government construction of projects with a high likelihood of failure for economic or environmental reasons.

Nevertheless, these plants will still provide a proving ground for technologies which may be successful. I do not think we can foreclose this avenue of technology development. And, if the projects constructed by the corporation are unsuccessful, this knowledge also will be a yardstick by which to measure other proposed facilities and other unproven technologies.

For these reasons, Mr. President, I will oppose the Percy amendment to prohibit construction of synfuels facilities by the Synthetic Fuels Corporation.

Mr. DOLE. Mr. President, I agree with the amendment proposed by the distinguished Senator from Illinois (Mr. Percy). While title I would authorize GOCO's only as a last resort to develop synthetic

is, this is not an option we ought to make available. Our goal is to have a commercially viable technology for developing synfuels, and the Government is not known for engaging in commercially viable enterprises. The GOCO's would be an unfortunate hybrid, sufficiently diluted from market pressures to be useless in providing information about the commercial potential of synthetic fuel technologies. We need an energy bill that is tightly focused and carefully constructed to encourage new enterprises that can stand on their own feet. We cannot afford to keep energy options open, and we need to make decisions. The GOCO's are one option that we ought to eliminate right now.

Mr. FORD. Mr. President, I rise in opposition to the amendment and support of the Government owned/company operated (GOCO) as a last resort option in S. 932.

Certain promising technologies or abundant domestic energy resources may not be developed if the GOCO option is not available to the Synthetic Fuels Corporation (SFC). It is possible—but far from certain—that the SFC may need to use a GOCO to commercialize the liquefaction/liquefaction or other energy use of municipal or agricultural waste, peat, eastern oil shale, or highly caking eastern coal.

The GOCO provision is a last resort alternative. Sufficient safeguards exist—including Senator Bentsen's amendment—to prevent its use. As S. 932 is presently drafted, the SFC could build a GOCO only if no private sector party is interested in constructing that project despite the availability of all other SFC incentives—including the 100 percent ownership incentive. In addition, the Corporation is limited to one GOCO's, after which it needs two-House approval to build another GOCO.

The Corporation can only build a GOCO if the construction of that plant is necessary to achieve its overall plan.

GOCO's constructed by the SFC will be subject to all Federal and nondiscriminatory State and local environmental land use and siting laws to the same extent as private sector projects.

Small and regulated companies cannot use the front-end incentives (that is, price and purchase guarantees) that are provided in the SFC. In certain cases, the technological risk associated with a key process or resource such as highly caking eastern coal will prevent use of the back-end incentives provided for in S. 932 (that is, loan guarantees, loans, and joint ventures).

In these special cases of GOCO incentive may be needed to allow the complete and competitive development of a comprehensive synfuels industry. For a number of industries, particularly regulated industries such as the gas and electric utilities, it may prove difficult to raise the investment capital needed to construct the synthetic fuels facilities. This is particularly true during periods of tight money.

Therefore, it may be necessary in the SFC to have a limited GOCO incentive available to assist technologies which supply energy to our nation's regulated utility systems and smaller companies.

For example, in previous synthetic fuels hearings before the Congress, members of the investment banking community have testified that synthetic gas plants would not be built without some form of

front-end incentive, such as loan guarantees, loans, joint ventures, GOCO's.

Mr. President, the Percy amendment should be defeated in order to provide the similar massive undertaking that our great Nation did during World War II to develop the aluminum and rubber industries through Government financing. The South African Government is often cited as a model for the synthetic fuels industry.

Additionally, I have been advised that GOCO's will allow the coal industry to participate in synthetic fuels development through considerable operating expertise. This additional industry participation helps diversify the type involvement in our Nation's energy production.

North Carolina and Minnesota peat, coal in Pennsylvania, Kentucky, West Virginia, and other Eastern States, New York municipal waste, Midwestern States' agricultural waste—all the sources across the United States could move faster through this legislation GOCO provision.

Mr. PERCY. Mr. President, a parliamentary inquiry.

The PRESIDING OFFICER. The Senator will state it.

Mr. PERCY. If the Senator from Illinois removes the last two lines of the amendment, if he removes the following wording, "and in conformity with amendments striking references thereto throughout the bill," would the point of order be withdrawn?

Mr. JOHNSTON. Mr. President, I have told the Senator that I do not press the point of order.

Mr. PERCY. I thank the Senator.

I am prepared to yield back the remainder of my time.

The PRESIDING OFFICER. The question is on agreeing to the amendment.

Mr. JOHNSTON. Mr. President, I move to table the amendment. I ask for the yeas and nays.

The PRESIDING OFFICER. Is there a sufficient second? There is no sufficient second.

The yeas and nays were ordered.

The PRESIDING OFFICER. The question is on agreeing to the motion to table the amendment. On this question the yeas and nays have been ordered, and the clerk will call the roll.

The legislative clerk called the roll.

Mr. CRANSTON. I announce that the Senator from Nevada (Mr. Cannon), the Senator from Massachusetts (Mr. Kennedy), the Senator from New York (Mr. Moynihan), the Senator from Connecticut (Mr. Ribicoff) and the Senator from Tennessee (Mr. Sasser) are all necessarily absent.

I further announce that the Senator from Delaware (Mr. Bingaman) is absent because of illness.

I further announce that, if present and voting, the Senator from Connecticut (Mr. Ribicoff) would vote "nay."

Mr. STEVENS. I announce that the Senator from Tennessee (Mr. Baker), the Senator from South Dakota (Mr. Pressler) and the Senator from Rhode Island (Mr. Chafee) are necessarily absent.

The PRESIDING OFFICER. Are there any other Senators in the Chamber who wish to vote?

result was announced—yeas 47, nays 44, as follows:

[Rollcall Vote No. 393 Leg.]

YEAS—47

	Heflin	Muskie
	Hollings	Nelson
	Huddleston	Nunn
s	Inouye	Pell
	Jackson	Pryor
Robert C.	Javits	Randolph
	Johnston	Riegle
	Leahy	Sarbanes
	Levin	Stennis
ini	Long	Stevenson
di	Magnuson	Stewart
	Mathias	Stone
1	Matsunaga	Talmadge
	McGovern	Tsongas
	Metzenbaum	Williams
	Morgan	

NAYS—44

ing	Gravel	Proxmire
	Hart	Roth
	Hatch	Schmitt
	Hayakawa	Schweiker
its	Heins	Simpson
arry F., Jr.	Helms	Stafford
	Humphrey	Stevens
	Jepson	Thurmond
n	Kassebaum	Tower
h	Laxalt	Wallop
	Lugar	Warner
urger	McClure	Weicker
	Melcher	Young
	Packwood	Zorinsky
ter	Percy	

NOT VOTING—9

Chafee	Pressler
Kennedy	Ribicoff
Moynihan	Sasser

the motion to table was agreed to.

JOHNSTON. Mr. President, I move to reconsider the vote by which the motion was agreed to.

METZENBAUM. Mr. President, I move to lay that motion on the

motion to lay on the table was agreed to.

PRESIDING OFFICER. The question now recurs on agreeing to the amendment of the Senator from West Virginia.

DOMENICI. Mr. President, can we set the Senator's amendment aside while we take up another amendment?

ROBERT C. BYRD. Yes. I ask unanimous consent that my amendment be temporarily laid aside.

PRESIDING OFFICER. Without objection, it is so ordered.

UP AMENDMENT NO. 749

(Purpose: To remove any authority for the Corporation to build more than three Corporation Construction Projects)

Mr. DOMENICI. Mr. President, I send an unprinted amendment to the desk and ask for its immediate consideration.

The PRESIDING OFFICER. The clerk will report.

The assistant legislative clerk read as follows:

The Senator from New Mexico (Mr. Domenici) proposes an unprinted amendment numbered 749.

Mr. DOMENICI. Mr. President, I ask unanimous consent that further reading of the amendment be dispensed with.

The PRESIDING OFFICER. Without objection, it is so ordered.

The amendment is as follows:

On page 108, strike subsection 142(b), lines 8 through 17. Renumber succeeding subsections accordingly and make any necessary technical conforming changes to the bill.

Mr. JOHNSTON. Mr. President, point of order.

The PRESIDING OFFICER. The Senator will state it.

Mr. JOHNSTON. Did the Chair say a moment ago that the motion to lay on the table was agreed to?

The PRESIDING OFFICER. The Chair did.

Mr. DOMENICI. Mr. President, may we have order?

The PRESIDING OFFICER. The Senate will come to order.

The Senator from New Mexico.

Mr. TALMADGE. Mr. President, will the Senator yield 30 seconds to me?

Mr. DOMENICI. I would be pleased to yield.

Mr. TALMADGE. Mr. President, I ask unanimous consent that the following staff members of the Committee on Agriculture, Nutrition, and Forestry be granted the privilege of the floor during consideration of S. 932, including all rollcall votes thereon: Henry Casso, Carl Ross, Phil Fraas, Bill Bates, Bill Leshner, Jim Giltmier, George Dunlop, and John Bode.

The PRESIDING OFFICER. Without objection, it is so ordered.

Mr. TALMADGE. I thank my friend from New Mexico.

Mr. ROBERT C. BYRD. Mr. President, will the Senator yield to me?

Mr. DOMENICI. I would be pleased to yield to the majority leader.

Mr. ROBERT C. BYRD. Mr. President, may we have order in the Senate? Mr. President, can we determine how many Senators still have amendments? Mr. Talmadge, Mr. Exon, Mr. Bradley, Mr. Church, Mr. Cranston—

Mr. DOMENICI. Are we talking about the whole bill?

Mr. ROBERT C. BYRD. Amendments to the bill.

Mr. DOMENICI. I have one.

Mr. ROBERT C. BYRD. Mr. Nelson, Mr. Hatch, Mr. Garn. Senator Dole has five.

Mr. NELSON. Senator Ford from Kentucky has an amendment.

Mr. ROBERT C. BYRD. Can we get some time agreements on some of these amendments? Mr. Cranston?

Mr. CRANSTON. Fifteen minutes to the side.

r. ROBERT C. BYRD. Fifteen minutes to the side on Mr. Cranston's amendment.

r. DOMENICI. What is his amendment?

r. JOHNSTON. Mr. President, reserving the right to object—
the PRESIDING OFFICER (Mr. Matsunaga). The Senate will be in order.

r. JOHNSTON. Mr. President, reserving the right to object, and I do not object, I wonder if the majority leader might be in a position to again ask unanimous consent to take up the bill title by title. Have you got—

r. JAVITS. I object. Right now I have told those who have indicated—and a number have, and I have to consult another Senator—ask to be protected on my own amendment which I am now checking—so I cannot agree to the unanimous-consent request.

r. DOMENICI. I wonder if the Senator can agree—

r. JAVITS. No, he cannot. I would like to wait a few minutes.

r. ROBERT C. BYRD. Would the managers of the bill be agreeable to 15 minutes?

r. DOMENICI. I have been informed on our side that unless we know exactly what the amendment is and properly identified, we cannot.

r. CRANSTON. It is in relationship to heavy oil.

r. DOMENICI. We cannot agree to a time limit on that.

r. HELMS. Mr. President, will the majority leader excuse Senator Cranston?

r. ROBERT C. BYRD. Mr. Garn; how much time, Mr. Dole?

r. DOLE. I ask for about 4 minutes.

r. RANDOLPH. Mr. President, the Senate is not in order.

the PRESIDING OFFICER. The point of order is well taken. The Senate is not in order. The Senate will come to order. Members will clear the desks and staff members will return to the designated area. The Senate is now in order.

r. ROBERT C. BYRD. Mr. President, it is hoped the Senate can complete its work on this bill today and it is for that reason I am attempting to see if we can get some time agreements. We would like to take up the DOD appropriations bill tomorrow and not Saturday, and we would like to finish this today.

r. JAVITS. Will the Senator finish this bill tonight?

r. ROBERT C. BYRD. We hope to finish it tonight.

r. JAVITS. We hope too. Do you expect that you will?

r. ROBERT C. BYRD. Yes.

r. JAVITS. Because if you want a time agreement you will not finish tonight. I will not break an important engagement just for the purpose of making a time agreement.

r. ROBERT C. BYRD. Mr. President, I have seen many situations in which there are more amendments than I have seen indicated here today, and we finished. So I hope we can finish. I cannot say categorically we will.

r. McCLURE. Mr. President, will the Senator yield? I will reserve the right to object unless we have some idea about how the order is in effect on this bill. Until we have got some idea of the order, it is impossible from my standpoint to agree to any time agreement.

Mr. STEVENS. Mr. President, will the Senator yield? I have asked Senators on our side who have amendments to offer to come to the floor, and they are on their way now. They would like to participate in an agreement not only as to time but as to order so we might find a way to finish tonight. I would urge the Senator let us get all of the Members here who will offer amendments and see if we can divide the time between 8:30 and midnight so we can finish.

Mr. ROBERT C. BYRD. All right. I think that is a good idea.

Mr. METZENBAUM. I do not know what amendments will be forthcoming. It will be difficult to assess those amendments on the floor. Some amendments may necessitate subsequent amendments to be offered, and in order that the leader will be advised, I will object to any time limit or any agreement on such a basis until I ascertain what we are going to do.

Mr. ROBERT C. BYRD. Mr. President, we will attempt to see if we can work out time agreements with Senators who have amendments and then attempt to get the sequential order cleared.

I yield the floor. I hope a Senator will call up an amendment.

The PRESIDING OFFICER. The Senator from New Mexico has the floor.

Mr. DOMENICI. I have an amendment pending Mr. President.

This amendment is the one I told the Senate about immediately prior to the vote on Senator Percy's that I would offer. It is now pending. It makes it absolutely clear that there can only be up to three GOCO's under any circumstance under this Senate bill, three only. It strikes all language as to extraordinary circumstances which may permit additional ones, and that is precisely what it does. It strikes that language. That is all it does.

Mr. PERCY. Mr. President, will the Senator yield?

Mr. DOMENICI. I would be pleased to yield.

Mr. PERCY. I would just like to say that the Senator from Illinois fully supports the amendment and is very pleased indeed that apparently it will be accepted by the majority floor manager of the bill. I think it is much better to limit this to three projects. That would certainly permit a decisionmaking process so that the three most efficient technologies that cannot be done in any other way, will be selected.

Mr. DOMENICI. Mr. President, does the Senator from New York have a question?

Mr. JAVITS. I do. I have a question about the amendment.

Is the effect of the amendment to cause the law, if enacted as the Senate will have dealt with it, to state that if there are more than three GOCO's they have to be authorized by law like any other measure under any other bill; therefore, the number that we have permitted by tabling the Percy amendment is three, period?

Mr. DOMENICI. The Senator is absolutely right. When we say "authorized by law," what we mean is that there is no provision for anything but up to three. Here we would have to have a whole new legislative piece of legislation to increase that number.

Mr. JAVITS. One other question. The up to three means three different types of synfuels, not three of the same?

Mr. DOMENICI. That is absolutely correct.

Mr. JAVITS. I thank the Senator from New Mexico very much. Several Senators addressed the Chair.

THE PRESIDING OFFICER. The Senator from New Mexico still has the floor.

MR. WARN. Will the Senator yield?

MR. DOMENICI. I am pleased to yield, if it is on the amendment.

MR. WARNER. Yes; I am the author of amendment No. 575. Mr. President, the subject of this amendment is identical to an earlier piece of legislation, S. 1403, passed by this body. Accordingly, I am willing to assist the leaders of this legislation by setting 5 minutes aside for it.

MR. JOHNSTON. Mr. President, the Domenici amendment is now pending. Senator Metzenbaum is off the floor and asked me to protect on any time agreements, but I would not expect that we would have any long debate on it, anyway. It will help if the Senator will let us agree to the Domenici amendment, the amendment discussed earlier in the debate, which I am prepared to do. It has precisely the effect that he indicated it did; that is, it further limits the possibility of a GOCO. I am willing therefore, to accept the amendment, on behalf of the committee.

MR. DOMENICI. Mr. President, I move the adoption of my amendment.

THE PRESIDING OFFICER. The question is on agreeing to the amendment of the Senator from New Mexico.

The amendment (UP No. 749) was agreed to.

MR. DOMENICI. I move to reconsider the vote by which the amendment was agreed to.

MR. MCCLURE. I move to lay that motion on the table.

The motion to lay on the table was agreed to.

Several Senators addressed the Chair.

THE PRESIDING OFFICER. Is the Senator from Louisiana still seeking recognition?

MR. JOHNSTON. No, Mr. President.

MR. EXON addressed the Chair.

THE PRESIDING OFFICER. The question now recurs on agreeing to the amendment offered by the Senator from West Virginia.

MR. ROBERT C. BYRD. Mr. President, I ask unanimous consent that my amendment be temporarily laid aside and that the Senator from Nebraska may proceed with his.

THE PRESIDING OFFICER. Without objection, it is so ordered. The Senator from Nebraska is recognized.

UP AMENDMENT NO. 750

(Purpose: To increase the amount authorized in S. 932, title II, subtitles D and E, for the purpose of encouraging the production, development, and commercialization of alcohol fuels)

MR. EXON. I thank the Senator from West Virginia, the managers of the bill, and the Chair.

Before I proceed, Mr. President, I would like to ask the managers of the bill if it is in order at this time for me to offer an amendment that I have discussed with them on section 2 of S. 932.

MR. JOHNSTON. Mr. President, under the rules it is certainly in order. I had hoped that we could get unanimous consent to take this bill up title by title, and dispose of one title and move on to the next.

We have not been able to get that agreement. So, without prejudice to our strong desire to get that agreement agreed to in a matter of moments, I will yield to the Senator's desire and hope that that is the only amendment that we will take up out of order.

Mr. EXON. I thank the manager of the bill.

Mr. President, I send to the desk an unprinted amendment and ask for its immediate consideration.

The PRESIDING OFFICER. The clerk will state the amendment.

The assistant legislative clerk read as follows:

The Senator from Nebraska (Mr. Exon) proposes an unprinted amendment numbered 750:

On page 167, line 3, strike "20" and substitute "10".

On page 176, line 19, strike "\$650,000,000" and substitute "\$1,200,000,000".

Mr. EXON. Mr. President, I ask unanimous consent that further reading of the amendment be dispensed with.

The PRESIDING OFFICER. Without objection, it is so ordered.

The amendment is as follows:

On page 167, line 3, strike "20" and substitute "10".

On page 176, line 19, strike "\$650,000,000" and substitute "\$1,200,000,000".

On page 178, line 14, strike "\$450,000,000" and substitute "\$800,000,000".

On page 179, line 8, strike "\$200,000,000" and substitute "\$400,000,000".

On page 179, line 15, strike "\$650,000,000" and substitute "\$1,200,000,000".

Mr. EXON. Mr. President, I believe that we can dispose of this matter in fairly rapid order and save time.

Mr. President, Senator Stewart, Senator Bayh, and I are offering this amendment today to increase the authorization levels for the overall gasohol production program on a larger scale to increase production development, commercialization and needed technological improvements. Gasohol is a blend of 10 percent alcohol and 90 percent gasoline. It is proven technology which can offer some relief to our crippling dependence on imported oil almost immediately as we develop our "mixed energy economy" of tomorrow.

The Department of Energy's "Report of Alcohol Fuels Policy Review," June 1979, concluded that new ethanol facilities are more energy efficient than existing facilities which were built when energy costs were much lower than they are now, and can yield a net gain of 5 percent in liquid fuels when ethanol is produced. In addition, the report stated that ethanol conversion facilities can readily be designed to use fuel sources other than oil or gas.

The September 1979 "Technical Memorandum" prepared by the Office of Technology Assessment (OTA) has concluded that if alcohol is produced using coal, solar power, or other nonpremium fuels to supply energy for the distillation plant, currently planned ethanol capacity could save 35 to 80 million gallons of gasoline equivalent per year by the end of 1980.

Mr. President, gasohol provides an almost immediate access to extensions for our tight gasoline supplies. To improve and advance on this, however, we need sufficient flexibility in terms of authorization levels to encourage the development of small, medium, and large size gasohol production facilities. Without enough money to establish the broad spectrum of plant sizes we will not adequately tap the gasohol potential.

Small gasohol production facilities provide a broad-based effort at expanding the availability of gasohol throughout our entire country. To do this, however, we need sufficient authorization levels to insure that the needed technological advice and information is available to different parts of the country where different systems may be required. For instance, the feedstocks available in Nebraska or Indiana may be different than the feedstock available in Alabama and therefore this information must be available to each individual producer wanting to establish a project, together with needed studies and efforts to improve the existing "state of the art."

We have succeeded in convincing the American public that gasohol is an excellent fuel that is a step toward solving our immediate problems. From its humble beginnings in Nebraska, which pioneered the use of grain fuels in recent years and even popularized the name "gasohol" sales have increased dramatically nationwide. There are now more than 1,000 stations in 29 States selling gasohol. There are only optimistic reports about its feasibility as a readily available, renewable source of solution to recurring gas lines. The Senate must move rapidly to spark sufficient production of domestic ethanol to meet ever-increasing demands.

Mr. President, as a U.S. Senator from Nebraska, the State which piloted much of the research we now have on gasohol, I strongly urge my colleagues in the Senate to give their support to this measure, reminding all, once again, that this is an energy bill which employs the resources of our own Nation to reduce our crippling dependence on foreign energy sources.

Mr. President, I ask unanimous consent that the name of the senior Senator from West Virginia (Mr. Randolph) be added as a cosponsor of the amendment.

The PRESIDING OFFICER. Without objection, it is so ordered.

Mr. EXON. Mr. President, we are agreed that all this amendment does—and I think we have worked it out and have a general agreement on it—is simply increase the amount of money in title II of S. 982 from the stated figure of \$650 million to \$1.2 billion.

Many of us feel that the bill that was brought out of the Energy Committee was a good one, and we have supported it down the line. But I sincerely believe we should put a little more money into gasohol than was originally provided. I have no further statement at this time. I reserve the remainder of my time. I would like, if I could, to recognize the Senator from Georgia.

The PRESIDING OFFICER. Is the Senator yielding to the Senator from Georgia?

Mr. EXON. I am yielding to the Senator from Georgia.

Mr. STEWART. Alabama.

Mr. EXON. Alabama, I am sorry.

The PRESIDING OFFICER. The Senator from Alabama is recognized.

Mr. STEWART. Mr. President, the amendment we are offering today, Senator Exon, Senator Bayh, Senator Randolph, and myself, will do just as he said. It will increase the amount of moneys that are contained in the bill from \$650 million to \$1.2 billion.

This title will provide the needed financial assistance to build a strong and viable alcohol fuel industry in the United States. Alcohol

can provide one of the many parts of the puzzle that is needed to solve this country's energy problem in the coming years. With the financial assistance contained in this amendment, alcohol can reach its full potential as a significant contributor to the energy supply of America.

No one in this body needs to be reminded of the difficult situation in the Middle East. Our Nation is placing its entire security in the hands of a small number of oil producing nations. Though we cannot escape from this situation immediately, we can take major steps with the passage of a strong energy bill. And, alcohol fuel must be an essential element of that program. While we are moving toward a synthetic fuels industry, the United States can take a more immediate step toward energy independence by passing a solid alcohol fuels bill.

Title II of this bill is such a bill. I would like to strongly commend the distinguished Senator from Idaho, Mr. Church, for his strong leadership on this issue. His subcommittee and the full Energy Committee have produced a good section on alcohol fuel. This amendment would strengthen the bill by adding more financial assistance.

One of the strengths of this legislation is that it allows for the development of alcohol fuel production from all sized plants, from smaller facilities to very large plants. The amendment we are offering would increase the authorization levels, so that all the various technologies are given a chance to develop. This bill already provides technical assistance to people and companies who wish to get into the alcohol fuel production business. If we are not to have a high rate of failure, I believe it is essential that the Office of Alcohol Fuels have the necessary funds to develop the necessary technological information and to provide that information to whoever would need it. This amendment would help accomplish that objective.

Finally, the amount we are seeking is a minimum amount that will enable this country to reach the production goals established by this legislation. I am therefore pleased to be able to join Senator Exon and Senator Bayh and others in offering this amendment. Both of these distinguished Senators have long been leaders in the fight for alcohol fuels. Senator Exon actively fought for alcohol fuels while Governor of Nebraska and Senator Bayh has been a national leader on this issue.

Mr. President, this amendment is vitally needed for alcohol fuels to make its maximum contribution to our Nation's energy effort. I strongly urge my colleagues to join in the support of this amendment.

Mr. EXON. Mr. President, I yield to the senior Senator from West Virginia.

Mr. RANDOLPH. I commend the leadership of Senator Exon as he points to the value of gasohol as a substitute for gasoline made from foreign oil.

This sum of money is not exorbitant. Frankly, it is perhaps a lesser amount than is actually needed. But, it is a realistic increase, as the able Senator from Nebraska (Mr. Exon) the diligent Senator from Alabama (Mr. Stewart) and others have stated.

The American people will respond affirmatively to this amendment. I hope it will be accepted by the capable managers of the bill. I embrace the opportunity to cosponsor this amendment.

Interest in the use of alcohol as a motor fuel is not new. Beginning with the invention of the automobile and proceeding to the present

time, alcohol has been used in various forms. Henry Ford recommended its use and predicted that eventually the United States would rely exclusively on alcohol as a motor fuel. Race car drivers have used alcohol as a fuel or fuel additive from the inception of the sport.

Agriculture has shown interest in alcohol fuels from time to time. Enthusiasm for its use has increased each time grain surpluses have developed or when agriculture was in a depressed condition. Basically three factors have revived the discussion on this issue.

The United States has become increasingly dependent on imports of foreign oil at an ever increasing cost.

Coal and grain are in abundant supply.

Metropolitan areas are seeking an answer to their municipal wastes and air pollution.

Much testimony has been presented to the Congress in 1978 and 1979 concerning alcohol production and marketability.

There are sufficient raw materials in our Nation to supply enough alcohol for a significant percentage of our liquid fuel needs. It can be used as an additive or by itself as a motor fuel, while decreasing exhaust emissions.

Expanded use of methanol and ethanol I believe can be produced and sold for profit on a national basis. This \$1.2 billion will be seen as money well spent as oil, both domestic and foreign, becomes more scarce, and the price of these fuels continue to increase.

Mr. EXON. I thank the Senator from West Virginia. I yield to the Senator from Indiana.

Mr. BAYH. Mr. President, I am pleased to rise today to speak on behalf of title II, the Gasohol Motor Fuel Act of 1979, a critical section of S. 932, the Defense Production Act amendments. I introduced this bill on October 4, along with Senators Church and Johnston, as a printed amendment to S. 932. The Energy Committee subsequently adopted it as part of the energy bill before us.

The Gasohol Motor Fuel Act directs the President to set up an independent Office of Alcohol Fuels in the Department of Energy responsible for administering a program of financial incentives for alcohol production and responsible for achieving certain production goals. The bill, as reported by the committee, authorizes \$200 million of Federal outlays, in the form of price guarantees, purchase guarantees and loan guarantees to enable us to reach the goal of 920 million gallons of alcohol, for blending with gasoline, by 1982.

Further, the bill directs the Office to develop a plan for submission to the Congress, indicating how we can reach the goal of replacing 10 percent of our gasoline with alcohol by 1990. Finally, it provides for coordination between the Department of Energy and other departments and agencies with related responsibilities, in order to coordinate Federal efforts in this area, and directs Federal use of gasohol in the Federal fleet. I am hopeful that the Office of Alcohol Fuels will provide a focal point for this activity and finally bring the focus and priority to this promising energy alternative that has been sorely lacking to date.

Mr. President, I am also joining with Senators Exon and Stewart in offering an amendment to title II to increase the funding level provided in the committee bill. As it now stands, title II provides for \$200

million in Federal outlays for alcohol fuel development, and obligational authority of up to \$650 million. The bulk of these obligations represent backing for loan guarantees, and not actual expenditures by the Government unless borrowers default on their loans, an unlikely prospect.

Our amendment increases this level to \$400 million in outlays and 1.2 billion in obligational authority, a level we feel is sufficient to meet the production goals in the bill. The floor managers of this bill, Senators Johnston and Church, have agreed to accept it. I believe, Mr. President, that with this one change we will truly launch an aggressive and successful alcohol fuel development program.

Mr. President, I believe title II sets up a workable Federal program to get this ball rolling. Title II recognizes that future alcohol producers will be drawn from a number of different players: Large commercial producers such as agribusiness and food processing and marketing companies, distillers, and maybe even oil companies; smaller community-based organizations, such as farm cooperatives, small refiners, jobbers, and small businesses; and individual farmers interested in producing alcohol for their own on-farm use. I believe the Office of Alcohol Fuels will be able to efficiently and quickly assist all of these interested parties, with their very different needs, and I urge all those out there interested in harnessing our vast renewable resources to join this effort to make America more energy independent. The time is long past gone that we can afford to wait any longer. We have a critical liquid fuels problem in this country, that can only get worse without decisive action. The gravity of this situation has been underscored once again by recent events in Iran. We must get going now.

Mr. President, an adequately funded alcohol fuels program is a necessary supplement to S. 932. Alcohol fuels work. They are a versatile fuel suited for use in automobiles, utility peaking units, boilers, and industrial heating units, as well as for a variety of on-farm uses. They are also a valuable feedstock for the petrochemical industry and may well serve as an environmentally acceptable additive for the refining industry. Perhaps most importantly, alcohol fuels are a domestic energy source made from diverse renewable resources and wastes available in abundant quantities in every region of this country. We must turn our agricultural surpluses, and wastes, into opportunities. This will be a boon to our farmers, local economies, all across the land, and relieve taxpayers from paying farmers not to grow crops—on which we spent over \$10 billion last year. It can also free the drain on urban budgets caused by municipal waste disposal costs.

Mr. President, alcohol fuels will reduce our dependence on imported oil. If we make a substantial commitment now, ethanol can be available in the near future, and is in fact the only immediately available liquid fuel supplement on the horizon. Alcohol prices are not prohibitive in the short run, and can be brought down significantly in the long run. Alcohol fuels can result in a net energy gain, and particularly a net liquid energy gain.

Our present situation, Mr. President, is this. We have a growing market for gasohol, evidenced by the number of new outlets selling gasohol opening each day. We have distributors anxious to market gasohol, and we have sufficient feedstocks to supply a major effort. But

we are in a chicken-egg situation to this extent: our potential producers are ambivalent about investing in production facilities because they are uncertain about market potential and security. Banks are hesitant to loan money to alcohol producers. Sales are therefore limited because our production has been limited. Adoption of title II will provide a means of breaking out of this circle, and make sure that interested alcohol producers can get financing. I urge my colleagues to adopt this amendment and hope that we will begin to see positive results in the very near future.

Mr. President, I very much appreciate the opportunity to join as a cosponsor of this amendment with my distinguished friend from Nebraska. As we look at the potential for increasing our sources of liquid fuel, there are not very many sources that we can bring on line in any short period of time. We are talking about 5 or 10 years for the synfuels projects in the synfuels program was adopted yesterday. The one opportunity to bring liquid fuel on line very quickly is to develop alcohol fuels. I think it is important to move as quickly as we can.

I appreciate the opportunity to join with my friend from Nebraska, and I am hopeful we can agree to this amendment very quickly.

Mr. EXON. I thank the Senator from Indiana for his comments. I yield to the Senator from Alabama.

Mr. STEWART. Mr. President, I ask unanimous consent that my colleague from Alabama (Mr. Heflin) to be listed as a cosponsor to this amendment.

The PRESIDING OFFICER. Without objection, it is so ordered.

Mr. EXON. Mr. President, I now yield to the Senator from Kansas.

Mr. DOLE. Mr. President, I ask that I be made a cosponsor of the amendment, and I associate myself with the remarks made by the distinguished Senator from Nebraska (Mr. Exon) the distinguished Senator from Alabama (Mr. Stewart), the distinguished Senator from Indiana (Mr. Bayh), and the distinguished Senator from the great State of West Virginia (Mr. Randolph).

The PRESIDING OFFICER. Without objection, it is so ordered.

Mr. EXON. I am delighted to have the Senator as a cosponsor.

Mr. President, now I yield to the Senator from Idaho.

Mr. MAGNUSON. Will the Senator yield?

Mr. CHURCH. I yield.

Mr. MAGNUSON. Will the Senator from Nebraska add me as a cosponsor?

Mr. EXON. Mr. President, I ask that the Senator from Washington be added as a cosponsor.

The PRESIDING OFFICER. Without objection, it is so ordered.

Mr. CHURCH. Mr. President, title II in the pending bill represents the end product of the work of the Energy Committee in fashioning a program for stimulating the production of alcohol for fuel.

Nearly 2 years ago I introduced the initial measure that, in its original form, would have mandated the principal oil companies of this country to commence mixing alcohol with gasoline, giving them a schedule within which to bring that mixture up to a 10-percent blend.

Hearings were held on that proposal. After we had heard from the experts, both here in Washington and in the field, it appeared to us that the provisions of the original bill should be changed and that

the Government should stimulate the production of alcohol by loan guarantees, by price guarantees, and by purchase arrangements so as to expand this country's capacity to produce alcohol for mixing with gasoline as rapidly as possible.

Few of us really appreciate the enormity of the task. As I recall the figures, the United States is producing annually no more than 50 million gallons of alcohol suitable for fuel. In order to achieve 10 percent blend, we will have to increase our production from 50 million gallons a year to 11 billion gallons a year.

That is why I feel that the Senator from Nebraska, along with his able colleagues, the Senator from Alabama (Mr. Stewart), the Senator from Indiana (Mr. Bayh) and the Senator from Kansas (Mr. Dole), who all have taken a personal interest in gasohol and worked with the rest of us who are so inclined to get the program moving, are doing the right thing this afternoon. They fully appreciate the enormity of the task, to expand our alcohol production sufficiently so that it will begin to make a difference within the next few years.

I think the amendment they offer, which roughly doubles the authorized levels for loans and other forms of Government participation to stimulate this production, is in order. I commend them for bringing this amendment to the floor. Since I am with them in spirit, I should like to join them as a cosponsor of the amendment. I ask unanimous consent that my name be added to the others on the list.

The PRESIDING OFFICER. Without objection, it is so ordered.

Mr. EXON. I thank my friend from Idaho. We are delighted to have him as a cosponsor.

Mr. President, in addition, I ask that Senator Melcher and Senator Levin be added as cosponsors.

The PRESIDING OFFICER. Without objection, it is so ordered.

Mr. EXON. Mr. President, how much time have I remaining?

The PRESIDING OFFICER. There is no time limitation.

Mr. EXON. Mr. President, I just want to comment that it is interesting and heartening to see those who have been pioneers in the gasohol efforts at the national level stand up and support this proposal. I remember a few years ago when we were working so hard. Members who have talked about this on the floor today—and others who have not spoken yet, who are attending other duties—were the ones who led the fight in the Senate to get the exemption from the Federal tax, which was tremendously instrumental in bringing gasohol along to the place where it is right now.

I wish to also point out, Mr. President, that I sincerely feel, and most of the experts feel, that as we move forward in cutting down our reliance on imports of foreign petroleum products, gasohol is one of the most effective forms in which we can move. Therefore, Mr. President, I hope the amendment will be agreed to. Mr. President, I would also request that the Senator from New York (Mr. Javits) and also the Senator from New Jersey (Mr. Bradley) be added as cosponsors.

The PRESIDING OFFICER. Without objection, it is so ordered.

Does the Senator yield the floor?

Mr. EXON. Mr. President, I ask for the adoption of the amendment.

THE PRESIDING OFFICER. The Senator from Louisiana.

MR. JOHNSTON. Mr. President, I congratulate the Senator from Nebraska (Mr. Exon) who has worked in this field for 10 years and knows a great deal about it. I congratulate the Senator from Alabama (Mr. Stewart), who introduced the first bill in the Agriculture Committee; also, Senator Church, the author of the section now contained in the bill; Senator Bayh, who has worked for a long time in this area; as well as Senator Dole, who has been a real leader in this field.

This amendment, Mr. President, has been worked out with us. While it substantially increases the funds which we provide in the Energy Committee bill, I think honestly it is a responsible amount. We accept it not just in the spirit of going along but because I think it is a proper amount. This is so particularly when you consider that one of the larger plants which provide economies of scale would, if for the increase here tend to sop up the funds leaving insufficient funds available to fund not only the small plants but all of those which could appropriately be brought on line to meet the specified goals. The goals are 10 percent alcohol fuels by the year 1990, with a specific goal for the year 1982 of not less than 60,000 barrels a day; that time, and we hope considerably more.

So, Mr. President, we accept the amendment with thanks to the strong group of Senators who have sponsored it.

MR. MCCLURE. Mr. President, I thank the Senator from Nebraska for offering the amendment. It has my strong support. I shall not make the time to make all the speeches I have made over the last 10 years in Congress in regard to alcohol and gasoline, but I strongly support this program. We accept the amendment on this side of the aisle.

THE PRESIDING OFFICER. The question is on agreeing to the amendment.

The amendment was agreed to.

MR. JOHNSTON. Mr. President, I move to reconsider the vote by which the amendment was agreed to.

MR. MCCLURE. I move to lay that motion on the table.

The motion to lay on the table was agreed to.

THE PRESIDING OFFICER. The question now recurs on the amendment offered by the Senator from West Virginia.

MR. JOHNSTON. Mr. President, I do not see the Senator from West Virginia on the floor. I ask unanimous consent that that amendment be laid aside for the purpose of considering the amendment of the Senator from Georgia.

THE PRESIDING OFFICER. Without objection, it is so ordered.

MR. JOHNSTON. Will the Senator from Georgia withhold for a moment for a parliamentary inquiry?

THE PRESIDING OFFICER. The Senator will state it.

MR. JOHNSTON. Mr. President, have we adopted the committee-recommended amendments with respect to gasoline, subtitle K and subtitle L?

THE PRESIDING OFFICER. The amendment offered to that title was passed. That is the amendment offered by the Senator from Nebraska. Other amendments have not yet been offered to that title.

MR. JOHNSTON. I thank the Chair.

UP AMENDMENT NO. 751

(Purpose: To add to S. 982 provisions for a rural energy program in the Department of Agriculture coordinated with other Federal energy policies and programs)

Mr. TALMADGE. Mr. President, in behalf of myself, Mr. Helms, Mr. McGovern, Mr. Boschwitz, Mr. Dole, and Mr. Stewart, I send an amendment to the desk and ask for its immediate consideration.

The PRESIDING OFFICER. The amendment will be stated.

The assistant legislative clerk read as follows:

The Senator from Georgia (Mr. Talmadge), for himself and Mr. Helms, Mr. McGovern, Mr. Boschwitz, Mr. Dole, and Mr. Stewart, proposes an unprinted amendment numbered 751.

Mr. TALMADGE. Mr. President, I ask unanimous consent that further reading be dispensed with.

The PRESIDING OFFICER. Without objection, it is so ordered.

The amendment is as follows:

On page 147, between lines 12 and 13, insert a new title II as follows:

"TITLE II—AGRICULTURAL, FORESTRY, AND RURAL ENERGY

"Sec. 201. This Act may be cited as the 'Agricultural, Forestry, and Rural Energy Act of 1979'.

"Sec. 202. The table of contents in the first section of the Food and Agriculture Act of 1977 is amended by adding at the end thereof the following:

"TITLE XX—AGRICULTURAL, FORESTRY, AND RURAL ENERGY ACT

"Sec. 2001. Short title.

"SUBTITLE A—FINDINGS, PURPOSES, AND DEFINITIONS

"Sec. 2002. Findings.

"Sec. 2003. Purposes.

"Sec. 2004. Definitions.

"SUBTITLE B—AGRICULTURAL, FORESTRY, AND RURAL ENERGY PRODUCTION, USE, AND CONSERVATION PROGRAM

"Sec. 2011. Duty of the Secretary.

"Sec. 2012. Agricultural, Forestry, and Rural Energy Board.

"Sec. 2013. Program development.

"Sec. 2014. Agricultural, Forestry, and Rural Energy Production, Use, and Conservation Program.

"Sec. 2015. Annual reports to Congress.

"SUBTITLE C—AGRICULTURAL, FORESTRY, AND RURAL ENERGY RESEARCH AND EXTENSION

"Sec. 2021. Agricultural, forestry, and rural energy research.

"Sec. 2022. Agricultural, forestry, and rural energy extension.

"Sec. 2023. Coordination of research and extension.

"SUBTITLE D—WOOD ENERGY DEVELOPMENT

"Sec. 2031. Definition.

"Sec. 2032. Wood Energy Centers.

"Sec. 2033. Cost sharing for production of timber for wood energy.

"Sec. 2034. Forest management loan pilot program.

"Sec. 2035. Assistance to State forestry agencies.

"Sec. 2036. State advisory committees.

"Sec. 2037. National Forest System assistance in wood energy development projects.

"Sec. 2038. Forest land restoration.

"SUBTITLE E—AGRICULTURAL BIOMASS ENERGY DEVELOPMENT

"Sec. 2041. Definition.

"Sec. 2042. Agricultural Biomass Energy Centers.

"Sec. 2043. Small-scale agricultural biomass production assistance.

"SUBTITLE F—AGRICULTURAL, FORESTRY, AND RURAL ENERGY PRODUCTION, USE, AND CONSERVATION LOANS, DEMONSTRATION GRANTS AND COST SHARING

"Sec. 2051. Loans and demonstration grants.

"Sec. 2052. Consolidated Farm and Rural Development Act amendments.

"Sec. 2053. Rural electrification demonstration grants for alternative energy sources.

"Sec. 2054. Lending for energy production and conservation projects by production credit associations, Federal land banks, and banks for cooperatives.

"Sec. 2055. Agricultural Conservation Program energy conservation cost sharing.

"SUBTITLE G—FOREST SERVICE LEASES AND PERMITS

Sec. 2061. Forest Service leases and permits.

"SUBTITLE H—EFFECTIVE DATE

Sec. 2071. Effective date."

Sec. 208. The Food and Agriculture Act of 1977 is amended by adding at the end thereof a new title XX as follows:

TITLE XX—AGRICULTURAL, FORESTRY, AND RURAL ENERGY ACT**"SHORT TITLE**

"Sec. 2001. This title may be cited as the 'Agricultural, Forestry, and Rural Energy Act'.

"Subtitle A—Findings, Purposes, and Definitions**"FINDINGS**

"Sec. 2002. Congress finds that—

- "(1) the dependence of the United States on imported petroleum and natural gas must be reduced by all economically and environmentally feasible means, including the use of domestic biomass energy sources;**
- "(2) the agricultural, forestry, and rural sectors of our economy must conserve energy and substitute renewable sources of energy for imported petroleum and natural gas to the extent consistent with the maintenance of agricultural and forest productivity and a healthy rural economy;**
- "(3) agricultural commodities, forest products, and their wastes and residues are renewable biomass resources that, when properly used for the production of industrial hydrocarbons, alcohol fuels, and other energy sources, can substantially assist in reducing United States dependence on imported petroleum and natural gas and in making the agricultural, forestry, and rural sectors of our economy more energy self-sufficient;**
- "(4) the Secretary of Agriculture and the agencies under the direction of the Secretary of Agriculture administer programs and exercise authorities affecting the production of energy from, and management of renewable biomass resources;**
- "(5) the programs and authorities of the Department of Agriculture also serve other national needs, including the production of food, animal feed, wood and wood products for housing and other uses, and other necessities; and**
- "(6) a national program for increased production and use of energy from biomass that does not impair the Nation's ability to produce food and fiber on a sustainable basis for domestic and export use, and for rural energy conservation, must be formulated and implemented within a multiple-use framework.**

"PURPOSES

"Sec. 2003. The purposes of this title are to—

- "(1) facilitate the development and production of fuels from biomass by use of appropriate technology for direct application in on farm and rural energy situations, and research, extension, and conservation activities related to agricultural, forestry, and rural energy;**
- "(2) assure the development and implementation of an agricultural, forestry, and rural energy production, use, and conservation program that will enable the United States to meet the goals of net energy independence for agriculture and forestry, and a 50 percent reduction in petroleum and natural gas use by rural residents and communities, by the year 2000;**
- "(3) create within the Department of Agriculture an Agricultural, Forestry, and Rural Energy Board to assist the Secretary of Agriculture in developing and implementing the agricultural, forestry, and rural energy production, use, and conservation programs; and**
- "(4) make changes in existing programs and authorities of the Department of Agriculture, consistent with, and not duplicative of programs and authorities of the Department of Energy, related to research, technology transfer, and operational activities, in order to conform such programs and authorities to the needs of the agricultural, forestry, and rural energy production, use, and conservation program, and establish new programs and authorities necessary for the effective implementation of that program.**

"DEFINITIONS

"Sec. 2004. As used in this title, the term—

"(a) 'biomass' means agricultural commodities, forest products, and their wastes and residues that can be used as fuel or for the production of industrial hydrocarbons, or alcohol fuels or other energy sources; that will assist in reducing petroleum and natural gas imports. Biomass, without limiting its meaning, includes grain and stalks of corn, wheat, rice, and sorghum, cottonseed and peanut hulls, fruits and vegetables and their processing byproducts and residues, aquatic plants, specific energy-farm crops, animal wastes, wood and wood products, bark, wood pulp and chips, residues from logging and paper manufacturing, and animal waste products;

"(b) 'Board' means the Agricultural, Forestry, and Rural Energy Board, created under section 2012 of this title;

"(c) 'Program' means the Agricultural, Forestry, and Rural Energy Production, Use, and Conservation Program developed under section 2014 of this title; and

"(d) 'Secretary' means the Secretary of Agriculture.

"Subtitle B—Agricultural, Forestry, and Rural Energy Production, Use, and Conservation Program

"DUTY OF THE SECRETARY

"Sec. 2011. In order to enable the United States to achieve net energy independence for agricultural and forest production, processing, and marketing, and to reduce the petroleum and natural gas consumption of rural residents and communities by 50 percent by the year 2000, the Secretary, in coordination with the Secretary of Energy, shall implement the Program Developed under section 2014 of this title.

"AGRICULTURAL, FORESTRY, AND RURAL ENERGY BOARD

"Sec. 2012. (a) The Secretary shall establish an Agricultural, Forestry, and Rural Energy Board to perform, and assist the Secretary to perform, the functions and duties required by this title.

"(b) The Board shall be composed of four members, as follows—

"(1) the Secretary,

"(2) the Secretary of Energy,

"(3) the Deputy Secretary of Agriculture, and

"(4) the Deputy Secretary of Energy.

"(c) The members of the Board may authorize designees to represent them at meetings of the Board.

"(d) The Secretary shall be Chairperson of the Board,

"(e) The Secretary shall designate an executive director for the Board, to be paid at a rate not in excess of the rate prescribed for grade GS-18 in the General Schedule set out in section 5332 of title 5 of the United States Code, and shall provide for such additional professional and clerical assistance as may be necessary for the Board to perform its responsibilities under this title.

"(f) Beginning October 1, 1980, the Board may use, to the extent provided in appropriation Acts, the resources of all Department of Agriculture agencies (except the Commodity Credit Corporation), and outside consultants, as may be necessary to perform its responsibilities under this subtitle. In fiscal year 1980 the Board may use the funds and facilities of the Commodity Credit Corporation to carry out its responsibilities under this subtitle. There are hereby authorized to be appropriated, for each of the fiscal years 1981, 1982, 1983, and 1984 such sums as may be necessary for the Board to carry out its responsibilities under this subtitle.

"(g) The Board shall meet at the call of the Secretary, but at least quarterly.

"PROGRAM DEVELOPMENT

"Sec. 2013. (a) The Board shall assist the Secretary in carrying out section 2011 of this title by—

"(1) assessing the Nation's agricultural, forestry, and rural energy needs, resources, practices, legal authorities, programs, and related elements;

"(2) preparing the Program based upon such assessment; and

“(3) preparing the reports required by section 2015 of this title.

“(b) In performing the agricultural, forestry, and rural energy assessment, the Board shall—

“(1) identify agricultural, forestry, and rural energy objectives, consistent with the goals contained in section 2011 of this title;

“(2) determine the quality and quantity of biomass that is potentially available for energy production;

“(3) identify the ways in which biomass can be used to meet United States energy needs and especially promising areas of development;

“(4) identify and assess practices to conserve energy in agricultural and forest production, processing, and marketing and in rural communities;

“(5) identify and evaluate agricultural, forestry, and rural energy production, use, and conservation systems and technologies;

“(6) identify the policies and procedures necessary to ensure that the production of agricultural commodities and forest products will not be interrupted by energy shortages;

“(7) identify the practices necessary to conserve and enhance the productivity of soil resources, while pursuing the goals contained in section 2011 of this title;

“(8) identify ways to minimize the adverse consequences of energy production on agricultural, forests, and rural lands and related natural resources, and rural communities;

“(9) analyze the comparative economic value of biomass materials within a framework that takes into account the various uses to which these materials can be put, including, in addition to potential energy use, alternative uses such as the production of food, animal feed, housing and other construction materials, fertilizers, and petrochemical substitutes;

“(10) assess existing and anticipated Federal and State laws, policies, programs, and regulations relating to the production and use of biomass energy and the conservation of energy in agriculture, forestry, and rural communities;

“(11) evaluate the effectiveness of existing Department of Agriculture programs and policies in achieving the goals contained in section 2011 of this title; and

“(12) analyze the adequacy of existing legal authorities and funding, and recommend changes in such authorities and funding necessary, to achieve the goals contained in section 2011 of this title.

“(c) The assessment required under subsection (b) of this section shall be completed by September 30, 1990, and updated when necessary, but at least every five years. The initial assessment and the updated assessments shall be submitted to Congress.

“(d) In performing its duties under this section, the Board shall use, to the maximum extent feasible, the information, analyses, assessments, and evaluations available from other Federal agencies, in order to avoid duplication of effort.

“AGRICULTURAL, FORESTRY, AND RURAL ENERGY PRODUCTION, USE, AND CONSERVATION PROGRAM

“SEC. 2014. (a) The Board shall prepare an Agricultural, Forestry, and Rural Energy Production, Use, and Conservation Program setting forth measures, actions, funding levels, and other means to achieve the goals contained in section 2011 of this title without reducing the ability of United States agriculture or forestry to meet other national needs, or adversely affecting rural communities. The Program shall include, but not be limited to—

“(1) a inventory of the specific needs and opportunities for public and private investment in agricultural, forestry, and rural energy production, use, and conservation projects;

“(2) identification of the estimated costs, returns, results, and benefits associated with investments in such a manner that the estimated costs can be directly compared with the total related benefits; and

“(3) a discussion of the priorities and options for the accomplishment of the Program, specifying estimated costs, result, and benefits.

“(b) The Program shall use and be based on the Board's assessments made under section 2013 of this title, as well as other relevant data (including the renewable resource assessments and renewable resource programs prepared under the Forest and Rangeland Renewable Resources Planning Act of 1974 and ap-

praisals and national soil and water conservation programs prepared under the Soil and Water Resources Conservation Act of 1977). The Program shall be consistent with any energy policies and programs developed by the Department of Energy.

"(c) The Program shall be developed in cooperation with Federal, State, and local agencies and organizations in accordance with such procedures as the Board may prescribe to ensure public participation.

"(d) The Program shall be completed and submitted to the President and Congress by December 31, 1980, and shall be reviewed and revised when necessary, but shall be reviewed at least every five years, and resubmitted to the President and Congress.

"ANNUAL REPORTS TO CONGRESS

"Sec. 2015. For the purpose of providing information that will aid Congress in its oversight responsibilities and improve the accountability for agency expenditures and activities, the Secretary, with the assistance of the Board, shall prepare annual reports that evaluate the implementation of the Program and submit them to Congress by February 1 of each year, the first such report to be submitted by February 1, 1982.

"Subtitle C—Agricultural, Forestry, and Rural Energy Research and Extension

"AGRICULTURAL, FORESTRY, AND RURAL ENERGY RESEARCH

"Sec. 2021. (a) To facilitate the development of agricultural, forestry, and rural energy production, use, and conservation, the Secretary shall implement an agricultural, forestry, and rural energy applied research program within the Department of Agriculture in accordance with the Program, using the programs and authorities established under this title and other programs and authorities available to the Secretary. The Secretary shall use, to the extent practicable, existing facilities of the Department of Agriculture and the Wood Energy Centers and the Agricultural Biomass Energy Centers established under this title, to implement the applied research program. Applied research under this subsection, to the extent that such research does not duplicate to any significant degree any program of the Department of Energy, shall include, but not be limited to, applied research to develop—

"(1) economical and energy-efficient fuel, industrial hydrocarbons, and petrochemical substitutes from biomass;

"(2) techniques for using energy derived from biomass in the production, processing, and marketing of agricultural commodities and forest products, especially techniques that farmers and owners of private forest land can use;

"(3) economical ways in which rural residents and communities can use energy derived from biomass;

"(4) the use of wood as an economical and energy-efficient material in building construction; and

"(5) energy conservation systems and techniques for farmers, owners of forest land, rural residents, and rural communities.

"(b) Section 1 of the Act of June 29, 1935 (49 Stat. 496, as amended; 7 U.S.C. 427), is amended by inserting after 'irrigation);' in the third sentence the following: 'in coordination with the Department of Energy, applied research to develop agricultural, forestry, and rural energy production, use, and conservation.'"

"(c) Effective October 1, 1980, section 3 of the Act of March 2, 1887 (24 Stat. 441, as amended; 7 U.S.C. 361c), is amended by—

"(1) in subsection (a), inserting '(1)' immediately after the subsection designation and adding at the end thereof a new paragraph (2) as follows:

"(2) Subject to the requirements and restrictions of section 2023 of the Agricultural Act of 1977, there are further authorized to be appropriated sums, not in excess of \$50,000,000 annually, as Congress determines necessary for the purpose of applied research at State agricultural experiment stations and eligible colleges and universities to develop agricultural, forestry, and energy production, use, and conservation. This authorization is in addition to any other authorization provided in this Act or in other law. As used in this paragraph, 'eligible colleges and universities' means those institutions eligible to receive funds under the Act of August 30, 1890 (26 Stat. 417-419, as amended; 7 U.S.C. 321-326 and 328), including Tuskegee Institute, and the Act of October 10, 1962 (76 Stat. 806-807, as amended; 16 U.S.C. 582a and 582a-1—582a-7).

"(2) in subsection (b) (1), striking out 'such sums' and inserting in lieu thereof 'the sums appropriated under subsection (a) (1) of this section'; and

"(3) in subsection (c), striking out 'subsection (b)' where it first appears and inserting in lieu thereof 'subsections (a) and (b)'.

"(d) Section 3(a) (1) of the Forest and Rangeland Renewable Resources Research Act of 1978 is amended by inserting 'energy production and conservation of energy (subject to the requirements and restrictions of section 2023 of the Food and Agriculture Act of 1977),' immediately after 'for timber';

"(e) Because biomass energy production must be balanced with food, fiber, and wood production and the land on which these types of production take place is finite, consideration must be given to the land available for such production. To ensure that land availability is given appropriate consideration in developing biomass energy production, the Secretary shall (1) include in the research performed under this section analyses of the possible restrictions to biomass energy production due to the limited availability of land, and (2) coordinate such analyses with similar activities conducted under the Soil and Water Resources Conservation Act of 1977 and the Forest and Rangeland Renewable Resources Planning Act of 1974.

"(f) The Secretary shall conduct a study of the feasibility of crop-livestock production systems to produce both food and fiber for domestic and export markets and biomass for use in the production of energy. The study shall include, but not be limited to, determination of—

"(1) the technical feasibility of such systems;

"(2) the proper use and conservation of soil and water resources under such systems;

"(3) potential fuel, livestock, and grain production under such systems;

"(4) the practical farm-level applicability of such systems; and

"(5) the potential economic and Government policy initiatives to promote the development of such systems.

The study shall be completed, and a report of the Secretary's findings submitted to Congress, by December 31, 1982.

"AGRICULTURAL, FORESTRY, AND RURAL ENERGY EXTENSION

"SEC. 2022. (a) In order to facilitate the development of agricultural, forestry, and rural energy production, use and conservation, the Secretary shall implement an agricultural, forestry, and rural energy extension program in accordance with the Program using the programs and authorities established under this title and other programs and authorities available to the Secretary, to disseminate the results of research performed under this title and encourage farmers, owners of forest land, rural residents, and rural communities to adopt projects for the production and use of energy from biomass and energy conservation techniques. The extension program shall be coordinated with the Energy Extension Service of the Department of Energy and shall include onsite demonstrations of techniques by which farmers and owners of forest land may produce their own energy supplies, energy consumption per unit of production may be minimized and rural residents, businesses, and communities may reduce their energy consumption.

"(b) Effective October 1, 1980, the Act of May 8, 1914 (38 Stat. 372-374, as amended; 7 U.S.C. 341-349), is amended by—

"(1) striking out in section 1 (7 U.S.C. 341) 'and home economics' and inserting in lieu thereof 'home economics, and rural energy';

"(2) striking out in section 3(c) (7 U.S.C. 343(c)) 'subsection (b)' and inserting in lieu thereof 'subsections (b) and (f)'; and

"(3) adding at the end of section 3 (7 U.S.C. 343) a new subsection (f) as follows:

"(f) There are further authorized to be appropriated such sums, not in excess of \$50,000,000 annually, as Congress determines necessary for rural energy cooperative extension work at eligible colleges and universities. This authorization is in addition to any other authorization provided in this Act or other law. As used in this subsection, "eligible colleges and universities" means those institutions eligible to receive funds under the Act of July 2, 1882 (12 Stat. 503-505, as amended; 7 U.S.C. 301-305 and 307-308), the Act of August 30, 1890 (28 Stat. 417-419, as amended; 7 U.S.C. 321-326 and 328), including Tuskegee Institute, and the Act of October 10, 1962 (76 Stat. 806-807, as amended; 16 U.S.C. 582a and 582a-1—582a-7). Such funds shall be used—

- “(1) to establish working groups at the State level to—
- “(A) train extension agents in agricultural, forestry, and rural energy production, use, and conservation techniques, and
- “(B) perform such other activities as the Secretary of Agriculture determines necessary for the rural energy cooperative extension program.
- “(2) to implement a program to provide onsite farm and rural residential energy audits and energy conservation plans to farmers and rural residents, and
- “(3) for the conduct of workshops and provision of similar training, dissemination of information, and provision of technical assistance with respect to the small-scale production of energy from agricultural biomass, as provided in section 2043 of the Food and Agriculture Act of 1977.

These activities shall be coordinated with the Energy Extension Service of the Department of Energy.’

“(c) Effective October 1, 1980, the first sentence of section 6 of the Renewable Resources Extension Act of 1978 is amended to read as follows: ‘There are hereby authorized to be appropriated to implement this Act \$15,000,000 for the fiscal years ending September 30, 1979, and September 30, 1980, and \$20,000,000 for each of the next eight fiscal years, including for each fiscal year beginning with the fiscal year ending September 30, 1981, \$5,000,000 for forest energy production, use, and conservation work under this Act. Such forest energy production, use, and conservation work shall be coordinated with the Energy Extension Service of the Department of Energy.’

“COORDINATION OF RESEARCH AND EXTENSION

“SEC. 2023. (a) The applied research and extension programs conducted under this title shall be coordinated with the programs of the Department of Energy and the food and agricultural research and extension activities conducted under title XIV of this Act.

“(b) The Board shall consult on a continuing basis with—

“(1) the Subcommittee on Food and Renewable Resources of the Federal Coordinating Council for Science, Engineering, and Technology.

“(2) the Joint Council on Food and Agricultural Sciences, and

“(3) the National Agricultural Research and Extension Users Advisory Board,

for the purpose of coordination of research and extension activities.

“Subtitle D—Wood Energy Development

“DEFINITION

“SEC. 2031. For the purposes of this subtitle, ‘wood energy’ means energy produced from wood and wood products, bark, wood pulp and chips, wood waste and residues, and residues from logging and paper manufacturing.

“WOOD ENERGY CENTERS

“SEC. 2032. (a) The Secretary shall establish not less than four nor more than eight Wood Energy Centers, each in a different geographic region of the United States and located in an area containing substantial amounts of forest land. To the extent practicable, the Centers shall be established at existing Department of Agriculture facilities for forest research.

“(b) Under the direction of the Board and in coordination with the programs of the Department of Energy and without significant duplication of such programs, each Wood Energy Center shall—

“(1) conduct applied wood energy production and use and energy conservation research projects that recognize the needs and opportunities of the region in which the Center is located;

“(2) develop and maintain a wood energy research information bank;

“(3) field-test promising research findings on wood energy production and use and energy conservation;

“(4) in cooperation with the State extension services and State foresters or equivalent State officials, and other appropriate State agencies, and through contracts with local entities having the necessary technical resources, provide technical assistance to farmers and other interested persons in its region on agricultural, forestry, and rural energy production, use, and, conservation and commercialization of rural energy projects;

"(5) demonstrate wood energy production and use and energy conservation projects, using, to the extent feasible, applied research performed under this title, including, but not limited to demonstrations of—

- "(A) the production, transportation, and handling of fuel from wood;
 - "(B) the use of wood energy for industrial parks, rural businesses, and rural communities;
 - "(C) wood pyrolysis and gasification for crop and lumber drying, poultry housing, and other uses;
 - "(D) the direct burning of wood for industrial and home use;
 - "(E) in cooperation with institutions of higher learning and State foresters or equivalent State officials, using privately owned land voluntarily offered or land available to the Forest Service, wood energy plantations; and
 - "(F) in cooperation with institutions of higher learning, engineering techniques that efficiently use wood for fuel;
 - "(6) in cooperation with the State extension services and State foresters or equivalent State officials, and other appropriate State agencies, disseminate information on new energy technologies through the conduct of conferences, seminars, and training programs;
 - "(7) perform energy need analyses for rural residents and communities and State governments within the region;
 - "(8) where appropriate, provide recommendations to the Secretary on the technical feasibility and potential benefit of demonstration projects for which applications for grants are made under section 2051 of this title; and
 - "(9) where appropriate, conduct similar research, field tests, and demonstration programs with respect to agricultural commodities and waste products.
- "(c) Where appropriate, the Secretary may authorize the Wood Energy Centers to implement the provisions of solar energy model farms and demonstration projects contained in subtitle H of title XIV of this Act.
- "(d) Where appropriate, the Wood Energy Centers shall share resources and coordinate efforts with the regional solar energy research, development, and demonstration centers established under section 1455 of this Act and appropriate elements of the Department of Energy as designated by the Secretary of Energy.
- "(e) Effective October 1, 1980, there are authorized to be appropriated such sums not in excess of \$30,000,000 annually, as Congress determines necessary for the Wood Energy Centers. Such sums shall be in addition to appropriations for forest research facilities that house the Centers.

"COST SHARING FOR PRODUCTION OF TIMBER FOR WOOD ENERGY

"SEC. 2083. (a) The Cooperative Forestry Assistance Act of 1978 is amended by—

- "(1) in section 2(b) striking out the semicolon after 'timber' and substituting in lieu thereof a comma and the following; 'including timber produced for wood energy';
- "(2) in the second sentence of section 4(a), inserting 'including timber produced for wood energy,' after 'production of timber'; and
- "(3) in section 4(b), inserting 'or timber used for wood energy' after 'industrial wood'.

"FOREST MANAGEMENT LOAN PILOT PROGRAM

"SEC. 2084. (a) (1) In order to encourage owners of private forest land to implement and maintain forest management programs, and thereby increase the production of wood for energy and other uses, the Secretary shall conduct a pilot program of financial assistance to owners of private forest land. The program shall include, but not be limited to, insured loans and guaranteed loans that provide periodic loan disbursements to participating landowners.

"(2) The pilot program shall operate for five consecutive calendar years, beginning with the first full calendar year in which funds are first made available under this section. No new loans shall be insured or guaranteed under this section after the fifth calendar year of operation of the pilot program.

"(3) The Secretary may defer the repayment of principal and interest on loans to landowners insured under this section under such conditions as the Secretary shall deem appropriate.

"(4) Any contract of insurance or guarantee executed by the Secretary under this section shall be an obligation supported by the full faith and credit of the United States and incontestable except for fraud or misrepresentation of which the holder of the contract has actual knowledge.

"(5) The provisions of section 310B(d)(6) of the Consolidated Farm and Rural Development Act shall apply to loans insured or guaranteed under this section.

"(b) Any individual, group, Indian tribe or other native group, association, partnership, corporation or other legal entity owning five thousand acres or less of private forest land capable of producing wood for energy or other purposes designated by the Secretary shall be eligible to receive insured or guaranteed loans under this section if the applicant certifies in writing, and the Secretary determines, that the applicant is unable to obtain sufficient credit elsewhere at rates and terms comparable to those provided in this section.

"(c) (1) The Secretary shall not insure or guarantee a loan in excess of \$50,000 to any one landowner under this section.

"(2) The total period of time permitted for repayment for a loan insured or guaranteed under this section shall not exceed forty years.

"(3) The Secretary may guarantee to any Federal or State chartered bank, savings and loan association, cooperative lending agency, Federal land bank, or other legally organized lending institution not to exceed 90 percent of that portion of the overall loan to a landowner that exceed the market value of the assets securing the loan in the event of default by the landowner.

"(4) Insured or guaranteed loans under this section shall be made on the personal liability of the borrower and shall be secured by (A) the land, (B) the timber grown thereon or (C) the land and timber, with respect to which the loan is made, and such other security as the lender may require. If such loans are secured by the timber alone, additional security may include insurance on the timber crop against natural hazards if, such insurance is available, or a performance bond on the outstanding loan obligation.

"(5) Loans guaranteed under this section shall bear interest at rates agreed on by the lender and landowner, but not in excess of such rate as may be determined by the Secretary. Loans insured under this section shall bear interest at rates determined by the Secretary, but not less than such rates as determined by the Secretary of the Treasury taking into consideration the current average market yield on outstanding marketable obligations of the United States with remaining periods to maturity comparable to the average maturities of such loans, adjusted in the judgment of the Secretary of the Treasury to provide for rates comparable to the rates prevailing in the private market and considering the Secretary's insurance of the loans, plus an additional charge prescribed by the Secretary to cover the Secretary's losses and cost of administration, and further adjusted to the nearest one-eighth of 1 percent.

"(6) The landowner shall prepare, keep current, and adhere to an individual forest management plan that shall (A) be developed in cooperation with and approved by the State forester or equivalent State official, (B) describe the activities needed to maintain or increase the productivity of the owner's forest land for the production of wood, and (C) include estimates of the volume of timber to be harvested during the term of the loan and the value thereof. The Secretary shall ensure that such management plans include adequate ecological safeguards to protect the forest resources. The estimated value so determined shall serve as the basis for determining the principal amount of the loan. The landowner may use the balance of any periodic disbursement received, after bringing interest and any other charge current, in any manner the landowner deems appropriate, so long as the provisions of the management plan and loan agreement are observed.

"(7) Borrowers who sell the forest land with respect to which an insured or guaranteed loan is made before the loan term is completed or who do not carry out the activities prescribed by the forest management plan required by paragraph (6) of this subsection shall make immediate repayment of all principal and accrued interest, plus costs that may have been incurred by the Secretary in insuring or guaranteeing the loan, except as provided in paragraph (10) of this subsection. In addition, the Secretary may assess penalties the Secretary deems appropriate on the termination of the loan prior to the time agreed upon by the borrower and the Secretary or, in the case of guaranteed loans, the lender as provided in this paragraph.

"(8) The amount of the periodic loan disbursements to a landowner under this section shall be based upon the future expected market value of the timber produced on the land, but in no case shall the total principal and interest obligation of the loan exceed 80 percent of the future expected market value of the timber as estimated in the forest management plan.

individual loan agreements and forest management plans shall be reviewed by the lender and the * * * comparable to those provided in this section. The landowner shall, upon request by the Secretary, apply for and accept in an amount sufficient to repay the Secretary and to pay for any stock to be purchased in a cooperative lending agency in connection with

assist in the development of the pilot program conducted under this section. In aid in preparing recommendations regarding the continuation and operation of the program, the Secretary shall appoint a committee, to be in effect through the period of the pilot program under this section, of not less than five persons, including, but not limited to, representatives from public and private lending institutions, private forestry concerns, and individuals. The Secretary shall consult with the committee in the preparation of the program required under subsection (f) of this section. The Secretary shall establish procedures for the selection of members and operation of the committee. Individuals who serve on the committee and are not employed by the Federal Government shall be paid such compensation for their services as the Secretary may determine, but such compensation shall not exceed the equivalent of the amount provided for grade GS-18 in the General Schedule set out in section 5332 of the United States Code per day, and actual necessary traveling and subsistence expenses, or a per diem allowance in lieu of subsistence expenses, as provided by section 5703 of title 5 of the United States Code for persons in Government service employed intermittently, when assisting in the development of the pilot program away from their homes or regular places of business. The committee established under this subsection shall coordinate its activities with

the Secretary may issue such regulations as are necessary to implement this section.

The Secretary shall annually report to Congress on the progress of the program conducted under this section. The first such report shall be submitted at the completion of the first year of operation of the pilot program. Subsequent reports shall be submitted prior to completion of the fifth year of operation of the pilot program and include an evaluation of the pilot program and the Secretary's recommendations on the need for, and the nature and scope of, a national forest management loan program.

The loan program authorized under this section shall be funded using monies drawn from the Rural Development Insurance Fund established under section 101A of the Consolidated Farm and Rural Development Act and shall be subject to the provisions of that Act governing that fund. Effective October 1, 1980, to the extent provided by appropriations Acts, the Secretary may use monies to (A) make insured loans to eligible landowners under this section not in excess of \$5,000,000 in total may be obligated for such loans and (B) guarantee loans to eligible landowners under this section, not in excess of \$5,000,000 in total may be obligated for such loans and

Effective October 1, 1980, there are authorized to be appropriated such sums as Congress determines necessary for administrative and operating expenses under this section and reimbursement to the Rural Development Insurance Fund withdrawn from the operation of the program.

"ASSISTANCE TO STATE FORESTRY AGENCIES"

35. (a) The Secretary may make grants to State foresters or equivalent officials for the employment of additional foresters or equivalent State officials, including consultants, to provide technical assistance to owners of private land (1) in identifying the opportunities for, and increasing, the production of wood or energy, and (2) in developing individual forest management plans under the cost sharing program authorized under section 2083 of this title. The Secretary may also make grants to State foresters or equivalent officials for the forest management loans pilot program authorized under section 2083 of this title, and as necessary and appropriate to ensure the efficient application of forest management practices under such programs.

The Secretary may take such actions as the Secretary deems necessary to carry out the program of training programs on the production of wood energy available to State and equivalent State officials. The Secretary shall consult with the Secretary of Energy on training materials and other assistance available from the Department of Energy.

"(c) The Secretary may provide management and planning assistance under section 8 of the Cooperative Forestry Assistance Act of 1978 to State foresters or equivalent State officials, upon their request, on State programs relating to the production of wood for energy.

"(d) Effective October 1, 1980, there are authorized to be appropriated such sums, not in excess of \$3,500,000 annually, as Congress determines necessary to carry out the purposes of this section.

"(e) In determining the amount of financial assistance to be provided to any State under this section, the Secretary shall consider the quantity of forest growth that is underused and the potential for use of this material in the production of energy in each State, using as a basis for such consideration the renewable resource Assessment prepared under section 3 of the Forest and Rangeland Renewable Resources Planning Act of 1974, along with other pertinent information.

"STATE ADVISORY COMMITTEES

"SEC. 2036. The Secretary shall establish State advisory committees in States in which there are significant amounts of private forest land. Each committee shall (1) advise the Secretary and the State forester or equivalent State official on its determinations as to the effectiveness of Federal programs designed to assist owners of private forest land in producing wood for energy, (2) determine the potential for the development of markets for wood energy and (3) report its findings on these matters to the Secretary and State forester or equivalent State official periodically. The Secretary shall establish procedures for the selection of the members and operation of the committees. State forestry planning committees where they exist shall serve as advisory committees.

"NATIONAL FOREST SYSTEM ASSISTANCE IN WOOD ENERGY DEVELOPMENT PROJECTS

"SEC. 2037. The Secretary shall make available wood and its wastes and residues from the National Forest System to assist in the research field-tests and demonstrations authorized under sections 2032 and 2042 of this title. The Secretary may make available the timber resources of the National Forest System in accordance with appropriate timber appraisal and sale procedures to commercial energy production enterprises established with loans or grants provided under sections 2061, 2062, and 2063 of this title.

"FOREST LAND RESTORATION

"SEC. 2038. Section 4 of the Cooperative Forestry Assistance Act of 1978 is further amended by—

"(1) in the second sentence of subsection (a), inserting 'clearing and' immediately before 'reforestation' and inserting 'or forest lands on which trees have been destroyed or severely damaged by natural disaster' immediately after 'understocked forest lands'; and

"(2) in subsection (g), inserting 'clearing the land,' immediately after '(4) the need for'.

"Subtitle E—Agricultural Biomass Energy Development

"DEFINITION

"SEC. 2041. For purposes of this subtitle, 'agricultural biomass energy' means energy produced from biomass materials other than wood or wood products, bark, wood pulp or chips, wood wastes or residues, or residues from logging and paper manufacturing.

"AGRICULTURAL BIOMASS ENERGY CENTERS

"SEC. 2042. (a) The Secretary shall establish not less than four nor more than eight Agricultural Biomass Energy Centers, each in a different geographic region of the United States and located in an area in which there is intensive use of the land for producing agricultural commodities. To the extent practicable, the Centers shall be established at existing Department of Agriculture facilities for agricultural research.

"(b) Under the direction of the Board and in coordination with the programs of the Department of Energy and without significant duplication of such programs, each Agricultural Biomass Energy Center shall—

"(1) conduct applied agricultural biomass energy production and use and rural energy conservation research projects that recognize the needs and opportunities of the region in which the Center is located ;

"(2) develop and maintain an agricultural biomass energy research information bank ;

"(3) field-test promising research findings on agricultural biomass energy production and use and rural energy conservation ;

"(4) train extension personnel to conduct workshops on the production of agricultural biomass energy, as provided in section 2043 of this title, and develop model training programs for the workshops ;

"(5) in cooperation with the State extension services and other appropriate State agencies, and through contracts with local entities having the necessary technical resources, provide technical assistance to farmers and other interested persons in its region on agricultural, forestry, and rural energy production, use, and conservation, and commercialization of rural energy projects ;

"(6) demonstrate agricultural biomass energy production and use and energy conservation projects using, to the extent feasible, applied research performed under this title including, but not limited to, demonstrations of—

"(A) the production, transportation, and handling of fuel from agricultural biomass ;

"(B) the use of agricultural biomass energy for rural businesses and rural communities ;

"(C) the use (directly or through generation of electricity needed in agricultural biomass energy production) of direct solar, passive solar, wind, and geothermal energy to convert agricultural commodities to fuel ;

"(D) in cooperation with institutions of higher learning, engineering techniques that efficiently use agricultural biomass for energy ; and

"(E) solar power for crop drying, irrigation pumps, and other purposes ;

"(7) in cooperation with the State extension services and other appropriate State agencies, disseminate information on new energy technologies through the conduct of conferences, seminars, and training programs ;

"(8) perform energy need analyses for rural residents and communities and State governments within the region ;

"(9) where appropriate, provide recommendations to the Secretary on the technical feasibility and potential benefit of demonstration projects for which applications for grants are made under section 2061 of this title, and

"(10) where appropriate, conduct similar research, field-tests, and demonstration programs with respect to wood and waste products.

(c) Where appropriate, the Secretary may authorize the Agricultural Biomass Energy Center to implement the provisions for solar energy model farms and demonstration projects contained in subtitle H of title XIV of this Act.

(d) Where appropriate, the Agricultural Biomass Energy Centers shall share resources and coordinate efforts with the regional solar energy research, development, and demonstration centers established under section 1455 of this Act and appropriate elements of the Department of Energy as designated by the Secretary of Energy.

(e) Effective October 1, 1980, there are authorized to be appropriated such sums, not in excess of \$80,000,000 annually, as Congress determines necessary for Agricultural Biomass Energy Centers. Such sums shall be in addition to appropriations for agricultural research facilities that house the Centers.

"SMALL-SCALE AGRICULTURAL BIOMASS PRODUCTION ASSISTANCE

SEC. 2043. (a) In order to enable the United States to produce sufficient agricultural biomass energy to meet the goal of net energy independence for agricultural and forest production, processing, and marketing contained in section 2011 of this title, the Secretary shall implement a program, using the State extension services, to conduct workshops and provide similar training, disseminate information, and provide technical assistance with respect to the small-scale production and use of ethanol, methanol, low and medium British thermal unit gas, and other energy forms from agricultural biomass, as provided in this section. The program shall be conducted, under the direction of the Board, in areas of the United States in which there is intensive use of the land for producing agricultural commodities.

"(b) The State extension service shall conduct agricultural biomass energy workshops that provide instruction to (1) interested persons on the construction and operation of small-scale agricultural biomass energy production facilities and (2) county extension agents on the conduct of agricultural biomass energy extension at the local level. The State extension services shall use personnel trained at the Agricultural Biomass Energy Centers for the conduct of the workshops, but may also contract with colleges and universities, junior colleges, vocational schools, including vocational agricultural schools, for facilities and additional personnel needed for the workshops. To the extent feasible, each workshop shall be conducted at a location at which an operational agricultural biomass energy production unit is available. To the extent feasible, not less than one hundred workshops shall be conducted annually. At least 5 percent of the county extension agents in each State in which there is intensive use of the land producing agricultural commodities shall be trained through the workshops to provide the practical training, information, and technical assistance on agricultural biomass energy production required under subsection (c) of this section.

"(c) The State extension services shall, at the local level and on a continuing basis, make available practical training, information, and technical assistance to farmers and other interested persons in the economical and energy-efficient small-scale production of ethanol and other agricultural biomass energy. Such assistance shall include educational programs to inform persons of Federal laws affecting the production, transportation, and handling of agricultural biomass energy products.

"(d) For the purpose of this section, 'small-scale production' means production annually of not more than two million gallons of ethanol or, for other forms of agricultural biomass energy, its energy equivalent.

"Subtitle F—Agricultural, Forestry, and Rural Energy Production, Use, Conservation Loans, Demonstration Grants, and Cost Sharing

"LOANS AND DEMONSTRATION GRANTS

"Sec. 2051. (a) To accelerate the development of biomass as a source of energy and improved rural energy conservation practices and reduce the Nation's need for imports of petroleum and natural gas, the Secretary shall establish projects for efficient use of energy in rural areas and rural production of energy from biomass through direct, insured, or guaranteed loans as provided in this section to finance the construction, establishment, renovation, or operation of projects.

"(b) In order to encourage the adoption of systems and techniques for biomass energy production and efficient use of energy in rural areas, the Secretary may make grants for the construction, establishment, renovation, or operation of projects for rural production of energy. There are hereby authorized to be appropriated \$100,000,000 for each of the fiscal years 1981, 1982, 1983, and 1984 for the purpose of making such grants.

"(c) The Board shall establish, and the Secretary shall use, a program for selection of projects to receive financial assistance under this section. To the extent practicable, the Secretary shall select for financial assistance under this section projects that (1) show promise of success based on research, field tests, and demonstrations performed by the Wood Energy Centers and Agricultural Biomass Energy Centers established under this title or by any other Federally assisted demonstration program and (2) carry out the Program. Priority shall be given to any project that uses a fuel other than petroleum or natural gas in producing the biomass fuel.

"(d) Loans may be made, insured, or guaranteed, and grants made for projects located in rural areas under this section—

"(1) with respect to on-farm projects, to any farmer or rancher in the United States or on-farm, cooperative, or private domestic corporate partnership that is owned or controlled primarily and directly in farming or ranching in the United States; and

"(2) with respect to other projects, to any domestic agricultural cooperative association owned or controlled by farmers or ranchers, domestic or private organization organized for profit or not for profit, or individual who is a United States citizen.

"(e) No loan may be made, insured, or guaranteed, and no grant may be made under this section for a biomass energy production project unless the Secretary determines that the total energy content of the biomass fuel to be produced

or the project will exceed the total energy from the petroleum and natural gas used in producing the biomass fuel.

(f) (1) Subject to the provisions of subsection (1) of this section, the total amount of loans made or insured under this section in any fiscal year may not exceed \$250,000,000. Not less than one-third of the total amount of loans made or insured under this section in any fiscal year shall be allocated for projects that use wood biomass, and not less than one-half of the total amount of loans made or insured under this section in any fiscal year, including loans for projects that use wood or agricultural biomass, shall be allocated for projects for small-scale production facilities.

(2) Subject to the provisions of subsection (1) of this section, the total amount of loans guaranteed under this section in any fiscal year may not exceed \$100,000,000. Not less than one-third of the total amount of loans guaranteed under this section in any fiscal year shall be allocated to projects that use wood biomass, and not less than one-fourth of the total amount of loans guaranteed under this section in any fiscal year, including loans for projects that use wood or agricultural biomass shall be allocated for projects for small-scale production facilities.

(3) For the purpose of this subsection, 'small-scale production facilities' means facilities that annually produce not more than two million gallons of ethanol or, for other forms of biomass energy, its energy equivalent.

(g) The Secretary shall establish such terms and conditions for loans and grants under this section as the Secretary determines necessary to implement this section and ensure the prompt repayment of loans.

(h) Insofar as practicable, not less than 75 percent of the loans, loan guarantees, and grants made under this section in any fiscal year shall be executed by May 31 of such fiscal year.

(i) The Secretary may use any agency of the Department of Agriculture to carry out the loan and grant program under this section.

(j) The Secretary shall coordinate the loan and grant program under this section with (1) the industrial hydrocarbon and alcohol loan and grant programs enacted under section 1419 of this Act and section 509 of the Rural Development Act of 1972, as added by section 1420 of this Act; (2) the loan programs enacted under the Consolidated Farm and Rural Development Act, as amended section 2052 of this title; and (3) the program for solar energy model farms demonstration projects conducted under sections 1452 through 1454 of this Act.

k) The Secretary may issue such regulations as are necessary to implement this section.

l) The Secretary shall carry out the provisions of this section regarding loans made, insured, and guaranteed loans through the Commodity Credit Corporation.

The Commodity Credit Corporation (1) may not make, insure, or guarantee loans under this section after September 30, 1984, and (2) beginning October 1, 1984, may make, insure, or guarantee loans under this section only to the extent authorized in appropriation Acts. Any contract of insurance or guarantee executed under this section shall be an obligation supported by the full faith and credit of the United States and incontestable except for fraud or misrepresentation of which the holder of the contract has actual knowledge.

m) In the case of a project that will produce more than one million gallons of ethanol (or, for other forms of biomass energy, such amounts of energy production determined by the Board to be appropriate) annually, the Secretary shall consult with the Secretary of Energy before awarding a grant, loan, or loan guarantee under this section.

"CONSOLIDATED FARM AND RURAL DEVELOPMENT ACT AMENDMENTS"

SEC. 2052. Effective October 1, 1980, the Consolidated Farm and Rural Development Act is amended by—

- 1) in section 303(b) (1), inserting 'in any farm operation or' after 'system';
- 2) in section 306(a) (14) (A), inserting before the second sentence the following: "The Secretary may also make or insure loans in the full amount thereof for rural electric systems for the construction and operation of electric generating facilities that use energy sources other than petroleum or natural gas, including, but not limited to, biomass and hydropower from small streams and rivers in rural areas, but not in excess of \$25,000,000 in total may be expected annually for such loans for facilities that use alternative energy sources.'";
- 3) in the first sentence of section 310B (a), inserting 'commercially feasible projects for biomass energy production,' after 'control,';

"(4) in section 312(a)(2), striking out 'solar energy' and inserting in lieu thereof 'biomass or solar energy or increases energy conservation'; and

"(5) adding at the end of section 346 a new subsection (c) as follows:

"(c) In addition to amounts otherwise authorized, loans for each of the fiscal years ending September 30, 1981, and September 30, 1982, are authorized to be insured, or made to be sold and insured, or guaranteed—

"(1) under the Agricultural Credit Insurance Fund as follows:

"(A) real estate loans, \$50,000,000 for farm improvements that establish nonfossil energy systems on the farm; and

"(B) operating loans, \$20,000,000 for equipment that uses biomass or solar energy or promotes energy conservation,

which amounts, in the discretion of the Secretary, may be used either for insured or guaranteed loans; and

"(2) under the Rural Development Insurance Funds as follows:

"(A) industrial developmental loans, \$270,000,000, of which \$20,000,000 may be for insured loans and \$250,000,000 may be for guaranteed loans, with authority to transfer amounts between such categories, to be used for commercial biomass energy production projects; and

"(B) community facility loans, \$25,000,000 for loans for rural electric systems for electric generating projects that use energy sources other than petroleum or natural gas, which amount, in the discretion of the Secretary, may be used either for insured or guaranteed loans."

"RURAL ELECTRIFICATION GRANTS FOR ALTERNATIVE ENERGY SOURCES"

"SEC. 2053. (a) The Administrator of the Rural Electrification Administration may make grants to rural electric borrowers eligible for loans under the Rural Electrification Act of 1936, or federations of these borrowers, for projects using alternative energy and energy conservation technologies including, but not limited to, small-scale hydropower, geothermal, wind, solar, and biomass projects.

"(b) Grants may cover all or a portion of the cost of such projects, including but not limited to, expenditures for construction and operation, and required economic, environmental, technological, planning, or other studies. Grants may be made alone or in combination with other governmental assistance or private funding.

"(c) Grants shall be made on such terms and conditions as the Administrator considers appropriate to further the purposes of this title.

"(d) There are authorized to be appropriated such sums, not in excess of \$10,000,000 for the fiscal year ending September 30, 1981, \$20,000,000 for the fiscal year ending September 30, 1982, \$25,000,000 for the fiscal year ending September 30, 1983, and \$30,000,000 for the fiscal year ending September 30, 1984, as Congress determines necessary for the purposes of this section.

"LENDING FOR ENERGY PRODUCTION AND CONSERVATION PROJECTS BY PRODUCER CREDIT ASSOCIATIONS, FEDERAL LAND BANKS, AND BANKS FOR COOPERATIVES"

"SEC. 2054. The Farm Credit Administration shall encourage the producer credit associations, Federal land banks, and banks for cooperatives to use existing authority in the Farm Credit Act of 1971 to make loans to farmers for the establishment or operation of commercially feasible biomass energy production or energy conservation projects.

"AGRICULTURAL CONSERVATION PROGRAM ENERGY CONSERVATION COST SHARING"

"SEC. 3055. Section 8 of the Soil Conservation and Domestic Allotment Act is amended by—

"(1) inserting after the word 'conservation' in the first sentence of subsection (b) the following: '(including energy conservation)'; and

"(2) inserting after the first two sentences of subsection (b) a new paragraph as follows:

"The Secretary may provide financial assistance to agricultural producers for the purpose of encouraging energy conservation by sharing the costs of providing technical assistance for (1) the establishment, restoration, and maintenance of shelter belts to conserve energy on farmsteads and feed lots, (2) the establishment and use of minimum tillage systems, (3) the efficient storage and application of manure and other suitable wastes to the land for land fertility and soil improvement, (4) the use of integrated pest management, (5) the use of

energy-efficient irrigation water management, (6) the establishment of water conservation measures necessary for the improvement of crop yields in relation to the amount of energy used in crop production, and (7) such other land, water, and related resource management practices that the Secretary may determine to have significant energy conserving effects.'

"Subtitle G—Forest Service Leases and Permits

"FOREST SERVICE LEASES AND PERMITS

"SEC. 3061. (a) It is the intent of Congress that the Secretary of Agriculture shall proceed to process applications for leases on National Forest System land in an expeditious manner, notwithstanding the current status of any plan being prepared under section 6 of the Forest and Rangeland Renewable Resources Planning Act of 1974, and shall report progress in this regard to the appropriate committees of Congress within ninety days after the enactment of this Act, and annually thereafter through 1985.

"(b) It is also the intent of Congress that applications for permits to explore, drill, and develop resources on land leased from the Forest Service shall also be processed in an expeditious manner, with due regard for environmental standards.

"Subtitle H—Effective Date

"EFFECTIVE DATE

"SEC. 2071. Except as otherwise provided in this title, the provisions of this title shall become effective upon enactment."

And redesignate all titles that follow accordingly.

MR. TALMADGE. Mr. President, the amendment is based on the language of S. 1775—the Agricultural, Forestry, and Rural Energy Act of 1979—as reported by the Committee on Agriculture, Nutrition, and Forestry. The amendment incorporates changes in S. 1775 that have been suggested by the Committee on the Budget and the Committee on Energy and Natural Resources.

They are good changes—improvements that recognize budgetary constraints and eliminate any chance of duplication with other energy programs that have been proposed or enacted into law. I appreciate the cooperation of Senators Jackson, Hatfield, and Muskie.

This substitute represents the best possible bill that provides, at a minimum cost, a central focus and a stimulus to the energy-related activities of the Department of Agriculture. The amendment builds, as does S. 1775, upon the unique capabilities of the Department of Agriculture's agencies for research, development, information transfer, and financial assistance to farmers, woodlot owners, and rural residents.

It requires, as does S. 1775, that the Secretary of Agriculture implement a comprehensive agricultural, forestry, and rural energy production, use, and conservation program for the development and production of alternative fuels from biomass, and for research, extension, and conservation activities related to agricultural, forestry, and rural energy. These policies and program activities are to be compatible with, and protect the basic functions of, the agricultural and forestry sectors. The goal of the program is to achieve net energy independence for the agricultural and forestry sectors, and a reduction of 50 percent in petroleum and natural gas consumption of rural residents and communities, by the year 2000.

The amendment also establishes an Agricultural, Forestry, and Rural Energy Board, as does S. 1775. The Board's membership, however, has been changed to reflect the importance of coordinating the

energy-related activities of the Department of Agriculture with the Department of Energy. The amendment provides that the Board be composed of the Secretary of Agriculture, the Secretary of Energy, the Deputy Secretary of Agriculture, and the Deputy Secretary of Energy. The Board will assist the Secretary of Agriculture in developing and carrying out the program in an efficient and effective way that is coordinated with other energy programs within the Federal Government.

To assure achievement of the goals of the program, the amendment authorizes \$50 million to be appropriated annually to support agricultural research by colleges and universities to develop renewable energy production and rural energy conservation practices. An additional \$55 million is authorized to be appropriated annually for energy extension work by cooperative State extension services. Local research and extension funding is provided for in S. 1775.

To help realize the full energy potential from wood and wood waste, the amendment would establish at least four wood energy centers in a different region of the Nation, in areas in which there are large amounts of forest land. Where feasible, each center would be located at an existing forest research facility of the Department of Agriculture. Under the direction of the Agricultural, Forestry, and Energy Board, each center would perform research, provide technical assistance, and operate demonstration projects relating to wood energy production and use, and energy production, use, and conservation in the rural areas within the region. Each wood energy center could provide expert advice to the Agricultural, Forestry, and Rural Energy Board in making decisions on the production of biomass energy and on rural energy conservation.

These centers would be centers of excellence, central places to which the best technical expertise on energy conservation and the development of wood and wood wastes as a source of energy tailored to local and regional potential and needs. As does S. 1775, the amendment provides up to \$30 million to be annually authorized for appropriations for the operation of the wood energy centers.

The amendment also provides, as does S. 1775, that timber production for wood energy be included as an eligible activity for cost-sharing agreements currently carried out under the forestry incentive program. It also establishes a 5-year pilot program under which the Secretary would make loans to owners of 5,000 acres or less of forest to support forest management practices designed to increase the production of wood for energy and other uses. Up to \$5 million in direct loans and \$5 million in guaranteed loans are authorized for this program annually.

To further the use of wood and wood wastes for energy, the amendment authorizes the Secretary of Agriculture to provide personnel training, and management assistance to State foresters. Up to \$1 million annually is authorized to be appropriated for this program. S. 1775 provides for a similar program.

To help realize the great potential for energy production from agricultural products and residues, the amendment establishes at least one agricultural biomass energy center, each in a different region of the Nation, in areas in which there is intensive use of the land for producing agricultural commodities. Where feasible, each center would

ated at an existing agricultural research facility of the Department of Agriculture.

Under the direction of the Agricultural, Forestry, and Rural Energy Board, each center would perform research, provide technical assistance, and operate demonstration projects relating to agricultural biomass energy production and use, and energy production, use, and conservation in rural areas within the region, and train extension personnel to conduct agricultural biomass energy workshops. Up to \$30 million is authorized for appropriations annually for the operation of these centers.

To increase the amount of the energy produced from agricultural commodities and residues, the amendment directs the Secretary of Agriculture to implement a workshop, training, information dissemination, and technical assistance program on small-scale agricultural biomass energy production for farmers and rural residents and communities. The program would be conducted by the cooperative State extension services in areas in which there is intensive use of the land for agricultural production. To the extent feasible, at least 100 workshops would be conducted annually. S. 1775 has a similar provision. To provide the financial assistance to meet the goals of the rural energy program, the amendment provides discretionary authorities for the Secretary of Agriculture to assist projects for agricultural and forestry energy production and use and energy conservation in rural areas, that warrant Federal grants, loans, or loan guarantees. The amendment provides annual funding of up to \$100 million for demonstration grants, \$250 million of direct or insured loans, and \$500 million of guaranteed loans for this assistance.

Unlike S. 1775, the amendment requires that the demonstration projects and direct or insured loans be subject to the appropriations process and only authorizes these programs through fiscal year 1984. The loan guarantees are reduced from \$1 billion to \$500 million annually, using the Commodity Credit Corporation as the funding source and subject to the appropriations process after fiscal year 1980. Like S. 1775, this amendment earmarks one-third of all loans and loan guarantees for wood energy projects.

To emphasize the potential of small-scale energy production projects, one-half of the direct and insured loans are earmarked for small-scale projects. In addition, one-fourth of the \$500 million in loan guarantees are earmarked for small-scale production projects. A small-scale production facility is defined as any facility that annually produces not more than 2 million gallons of alcohol or its energy equivalent for other forms of biomass energy.

Like S. 1775, the amendment requires that the amount of petroleum and natural gas used for such projects not exceed the amount of the alternative fuel produced. It further provides that priority for financial assistance must be given to those projects that use agricultural and forestry biomass as a process fuel in the production of alternative fuels.

To avoid any duplication of financial assistance for large-scale alcohol projects available through other programs of the Federal Government, the amendment requires that no alcohol project that would produce more than 1 million gallons of alcohol annually be approved for financial assistance without the concurrence of the Secretary of Energy. Criteria for the concurrence of the Secretary of

Energy with respect to other biomass projects would be developed by the Secretary of Agriculture and Secretary of Energy.

To further assist in producing alternative fuels and in conserving the use of existing fossil fuels, the amendment provides for loans targeted specifically for farmers, rural industries and communities, and rural electric systems similar to those provided for in S. 1775. The amendment authorizes farmownership loans for nonfossil fuel energy systems used in farm operations, and farm operating loans for equipment that uses energy derived from renewable resources or that increases energy conservation. For each of the fiscal years 1981 and 1982, the amendment specifically authorizes the use of \$50 million for farm ownership loans, and \$20 million for farm operating loans.

Also authorized are rural industrialization loans for commercially feasible projects for renewable resources energy production. For each of the fiscal years 1981 and 1982, the bill specifically authorizes the use of \$20 million for direct loans and \$250 million for guaranteed loans for such projects.

In addition, the amendment authorizes loans for rural electric systems for projects to generate electricity using nonfossil fuel sources. For each of the fiscal years 1981 and 1982, the bill specifically authorizes the use of \$25 million for these loans.

The amendment would also authorize the Administrator of the Rural Electrification Administration to make grants in fiscal years 1981 through 1984 to rural electric borrowers for projects demonstrating alternative energy and conservation technologies, including small-scale hydropower, geothermal, wind, solar, and biomass projects. Appropriations would be authorized for such grants as follows: \$10 million for fiscal year 1981, \$20 million for fiscal year 1982, and \$25 million for fiscal year 1983, and \$30 million for fiscal year 1984.

In addition the amendment directs the Secretary to provide cost-sharing and technical assistance to farmers under the agricultural conservation program for energy conservation measures such as shelterbelts around farmsteads and feedlots, establishment of minimum tillage systems for crop production, and energy-efficient irrigation water management.

Mr. President, I am convinced that agriculture, forestry, and rural United States can do much in making this Nation less dependent, in the near term, on petroleum and natural gas—the two major energy sources we import today. What is needed is for the Federal Government to implement the proper set of technical and financial incentives so that we can get started on this crucial mission.

Initially, the program will involve a Federal investment—perhaps \$200 to \$300 million annually for the next few years. But once it is shown that energy production, use, and conservation on farms and in rural areas are practicable and profitable, private enterprise will do the rest. The benefit from the money spent today could prove to be immeasurable.

Again, I want to express my appreciation to those who helped shape this amendment into its present form—especially Senator Helms, the distinguished minority member of the Senate Committee on Agriculture, Nutrition, and Forestry. Many long and hard hours have been

refining S. 1775—the amendment is truly a consensus bill. I urge my colleagues to support its adoption.

COMPREHENSIVE DESCRIPTION OF THE AGRICULTURAL, FORESTRY, AND RURAL ENERGY AMENDMENT

The energy crisis is one of the most important domestic issues this year faces.

Energy production in the United States depends on large quantities of petroleum and natural gas. Today, more than 75 percent of our energy requirements are filled by these fuels. This dependence has been brought about primarily by the low cost and abundance of these energy sources during the last four decades.

But supplies of these fuels are dwindling, however, both domestically and worldwide. No matter how large the quantity of untapped energy fuels, the supply is limited and will become exhausted within a few decades.

In addition, we rely heavily on imported petroleum. Currently, we import about one-half of our liquid fuels at a cost of about \$50 billion annually. In all likelihood, the price of imported energy will escalate in the future.

In order to reduce our dependence upon foreign sources of energy, we must pursue every appropriate means to conserve oil and gas and to increase the domestic production of energy from new or renewable sources.

One means of increasing our domestic energy production is to produce alcohol, processed wood, methane gas, and other combustible materials from agricultural and forest biomass, of which we have plentiful domestic supplies. Energy would be an additional output from the Nation's already productive farms and forests.

This approach need not be viewed as a dramatic and new initiative because much of the technology needed for renewable resources energy production is already available, and the Nation already has sufficient agricultural and forest production capability to produce energy feedstocks in abundance.

Indeed, the Department of Agriculture estimates that the existing supply of agricultural and forestry biomass that could be used for alternative fuels is equivalent to one-fourth of the Nation's total current energy consumption as follows:

Energy production from biomass

Current:	
Current energy production from biomass:	
Source:	
Best sources:	Quads
Residue recovery by industry.....	.9
Home heating and other industry.....	.2
Total	1.1
Agricultural sources (negligible).	

Potential:
Estimated total availability of energy from biomass on a strictly biological basis assuming sound forestry and agricultural practices but not including economic or other factors):

Energy production from biomass—Continued

<i>Source</i>	
Forest sources.....	
Agricultural residues from existing cropland.....	
Livestock wastes.....	
Total	
Non-cultivated agricultural lands including pasture.....	
Total	

The amount of energy actually achievable by 1990 depends upon many factors that are unclear at this time. Perhaps a realistic goal, assuming provision of the required economic incentives, and other necessary support such as soil conservation practices, would be 5 quads from both forestry and agricultural sources—with forestry serving as the primary source. This amount would effect, place the agricultural and forestry sectors on a net energy self sufficient basis by 1990.

Total U.S. energy consumption is now about 80 quads annually. The 2024 therefore represents 25 percent of total current energy usage; the five quads represents 6 percent of total usage.

Because there is no need for a lengthy startup period, biomass energy can fill the gap until other alternative fuel sources are developed and advanced.

There is every indication that a carefully focused and sustained commitment to the production of agricultural and forest biomass energy, in combination with the continued production of food, fiber, lumber, and paper products, and rural energy conservation result in making the agricultural and forestry sectors of our economy energy independent on a net basis by the year 2000.

This achievable goal recognizes that some of the energy produced from agricultural and forest biomass will be retained and used within these sectors, while another portion of that energy will be made available to the transportation sector and other uses throughout the economy. It is possible, however, that by the year 2000, the total production of energy from all types of agricultural and forest biomass equal or exceed the total energy used in the agricultural and forest sectors.

It is a goal of great importance to agriculture and rural America. A continuous and reasonably priced energy supply is vital to the production of food, fiber, and forest products and the economic and social well-being of every rural resident.

COMMITTEE'S FINDINGS

The committee on Agriculture, Nutrition, and Forestry has held extensive hearings over the last 2 years on the issue of energy production in rural America. The testimony of a number of experts with diversified backgrounds was that small-scale production of alternative fuels from agricultural and forest biomass offers one of the most practicable and least costly ways for the Nation to respond immediately to the energy crisis and that the technology for the efficient production of alternative fuels from wood, grain, and other agricultural biomass materials are becoming available now on a small- and intermediate-scale commercial application. Also it was pointed out during these hearings that methods to conserve the amount of energy used by farmers, rural residents, and rural communities

ilities are now ready for adoption and can substantially reduce the Nation's overall energy consumption.

What is needed, the committee has learned through these hearings, is an effort by the Department of Agriculture to provide the necessary applied research, technical know-how, and financial assistance in these areas. The Department already has in place an efficient delivery system that can be used for this effort.

The amendment meets this need. It amends the Food and Agriculture Act of 1977 to establish a coordinated program of research and technical and financial assistance within the Department of Agriculture to help farmers and ranchers and rural businesses and communities develop renewable resources energy production and use. It also promotes rural energy conservation practices on farms and in rural communities.

The amendment is expressly tailored to meet the needs of agriculture and rural America, using the agencies of the Department of Agriculture that serve rural United States. It builds upon the unique capabilities of the Department of Agriculture for research, development, information transfer, and financial assistance to farmers, woodlot owners, and rural residents, businesses, and communities. To the extent possible, it uses current programs of the Department of Agriculture, rather than creating new programs to compete with other Federal activities.

The amendment will not duplicate or lessen the effect of other energy activities within the Federal Government.

Many uses are, and can be made of agricultural commodities and forestry products to meet the needs of the Nation—for food, animal products, fiber, paper, and housing and other construction material, as well as for biomass energy. The development of policies and programs to encourage and use biomass for fuel will, therefore, have to be considered part of overall agricultural and forestry policies and programs. The amendment is designed to provide this focus to the renewable resources energy effort.

A COMPREHENSIVE ENERGY PROGRAM

The amendment mandates the development and implementation of a comprehensive and agricultural, forestry, and rural energy production, use, and conservation program that provides for the development and production of alternative fuels from biomass, and for research, extension, and conservation activities related to agricultural, forestry, and rural energy, to be coordinated with the Nation's other energy programs.

The Department of Agriculture's activities under the rural energy program called for under this amendment are to protect the basic conditions of the agricultural and forestry sectors and achieve the goals of energy independence for the agricultural and forestry sectors, a reduction of 50 percent in petroleum and natural gas consumption by rural residents and communities, by the year 2000.

AGRICULTURE, FORESTRY, AND RURAL ENERGY BOARD

The amendment also establishes an Agricultural, Forestry, and Rural Energy Board composed of the Secretary of Agriculture, the

Secretary of Energy, the Deputy Secretary of Agriculture, and the Deputy Secretary of Energy. The Board will assist the Secretary of Agriculture in developing and carrying out the rural energy program in an efficient and effective way.

In establishing the Agricultural, Forestry, and Rural Energy Board as the primary unit for the coordination of energy-related activities of the Department of Agriculture, with the Department of Energy, the amendment recognizes that these activities are not operations that can be consolidated into a single operating agency. Instead, the Department of Agriculture's energy-related activities tend to be dispersed through separate agricultural, forestry, and rural programs and functions. Creation of the Board recognizes the necessary dispersion of energy-related activities throughout the Department, and provides a coordinating unit for central direction and focus for the energy effort with other energy programs of this Nation.

The use of the Board will increase the extent to which competing demands for agricultural and forestry products, such as demands for corn both for food and alcohol or wood both for lumber and heating buildings can be reconciled and agricultural and forest commodities used most productively.

The Board will be authorized to use the resources of all Departments of Agriculture agencies in developing and implementing the rural energy program. It is intended that the activities under the rural energy program be integrated with other programs in the Department of Agriculture and in the Department of Energy.

RESEARCH AND EXTENSION

The amendment authorizes the use of \$50 million annually to support applied research by colleges and universities to develop renewable resources energy production and use and rural energy conservation practices. An additional \$55 million annually would be authorized for rural energy extension work. New renewable resources energy production and use and rural energy conservation technologies must be developed and refined, and the information developed must be disseminated to our Nation's farmers, ranchers, and rural businesses and communities.

At present, there are many farmers who wish to produce biomass energy, but they do not know how to begin. Questions must be answered concerning the appropriate technology, the scale of operation, and other such fundamental matters. An applied research and extension program will provide these answers.

Federal funding of agricultural research and extension activities over the years is a major reason why our farmers and ranchers are so productive today. With the necessary funding, there is little doubt that similar impressive results would occur with respect to renewable resources energy and rural energy conservation.

WOOD ENERGY

There are about 488 million acres of commercial forest land producing wood. Wood is one of the most versatile natural resources available. Historically, our Nation has relied on its forests to build its homes and to provide its paper products.

Forests can also supply a significant amount of the energy the Nation needs. Our nation's forests have great potential in providing substitutes for petroleum fuels, natural gas, and substitutes for petroleum feedstocks used in the chemical and plastics industries.

The potential exists to satisfy completely the entire energy needs of a wood products industry and provide energy to the general economy through increased wood production, increased use of wood residue to produce energy, and conservation in logging and milling activities.

In fact, the lumber and paper industries have used wood for energy on a large scale, by burning waste wood to generate steam and electricity in their plants, for years. At present, these industries use about 1 quadrillion Btu's of energy derived from wood—more than the energy produced from all other renewable energy sources combined.

Outside of the forest products industries, wood has not been extensively used as fuel. Yet, six and one-half quadrillion Btu's of energy lie in excess growth, noncommercial timber, logging residue, and logging cull and dead timber—wood that now never leaves the forest. An additional 3.2 quadrillion Btu's of energy exist in the form of material that could be produced from thinning and mill waste. Furthermore, there are several technologies now emerging that will allow wood to be used for energy to a much greater extent than now if the necessary incentives are provided.

Wood biomass, available on an annual basis, can produce 9.6 quadrillion Btu's of energy—over 10 percent of our Nation's yearly needs. In addition, using waste wood as an energy source will permit a new forest industry to take its place alongside the lumber and paper industries, one that would not do away or threaten the present timber supply.

The most promising and immediate prospect for converting wood energy is the use of solid wood and wood chips and pellets in newly developed wood-burning furnaces and boilers that are efficient and virtually pollution free. Such units are particularly suited for commercial and institutional uses. Two wood-fired utility plants now produce energy for public consumption—one in Vermont and one in Oregon. Work is under way to develop similar units to heat small buildings such as private homes.

Another technology for converting wood to energy is through the process of pyrolysis. This is not a new technology, but builds upon knowledge developed with coal in World War II. By pyrolyzing wood, a solid fuel can be transformed into char, oil, and gas suited for large energy users who can refit existing oil and natural gas furnaces. Technology for the total gasification of wood is also rapidly being developed. Wood gas produced by gasifiers can be burned in boilers and dryers or converted into alcohol.

In addition to industrial-scale pyrolysis and gasification units, some heaters are now available that operate 5 to 10 times more efficiently than old-fashioned fireplaces.

Specialized equipment is also being developed that will put raw wood into pellet or briquette forms. This processing will allow wood to be handled as a fuel commodity with fixed energy values and greatly reduced storage and handling costs.

The economic benefit of wood energy is perhaps as important as the energy benefit. If we build a new market for waste wood, rural jobs

will be created and rural incomes will be increased, strengthening the rural economy. Nationally, it is estimated that wood can produce to \$10 billion in energy sales, or about \$20 billion in total economic activity. This is nearly one-half the cost of the foreign oil that we use today.

We must continue to strive for net increases in volume from the timber stand. We must be careful to see that timber products are directed toward their highest use and that we get maximum use from every tree.

WOOD ENERGY CENTERS

To help realize the full energy potential of wood, the bill establishes at least four Wood Energy Centers, each in a different region of the Nation, in areas in which there are large amounts of private forest land. Where feasible, each Center would be located at an existing forest research facility of the Department of Agriculture. Under the direction of the Agricultural, Forestry, and Rural Energy Board, each Center would perform research, provide technical assistance, and operate demonstration projects relating to wood production and use, and energy production, use, and conservation in the rural areas within the region. Each Wood Energy Center also provides expert advice to the Agricultural, Forestry, and Rural Energy Board in making decisions on the production of renewable energy and on rural energy conservation.

These facilities would be centers of excellence, where the best technical expertise on energy conservation and the development of wood as a source of energy, tailored to local and regional needs and conditions, would be made available. Expenditures of \$30 million were authorized for the annual operating costs of the Wood Energy Centers.

PILOT WOODLAND MANAGEMENT LOANS

It is clear that small, privately owned woodlots can be better managed to increase wood supplies for energy and other uses.

In order to encourage the production of wood by small private owners, the amendment would make timber stand improvement practices, carried out by private landowners producing wood for sale, eligible for cost sharing under the forestry incentives program.

In addition, the amendment would establish a 5-year pilot program under which the Secretary of Agriculture would make loans to owners of 5,000 acres or less of forest land to support forest management practices designed to increase the production of wood for energy and other uses. As it stands now, it is not economically feasible for many private owners, especially owners of small woodlots, to engage in the best management practices because the initial costs of reseeded timber stand improvement are great and the expected economic return may not be forthcoming for 20 to 30 years. The pilot program is designed to determine if the economic restraints can be overcome with Federal assistance.

The amendment authorizes the Secretary of Agriculture to provide personnel, training, and management assistance to State Forests. Eight and one-half million dollars would be authorized to be appropriated for this program annually. As I have noted, this National

ble wood and wood wastes capable of meeting 10 percent or more annual national energy needs.

Each this potential, technical assistance is necessary; and this authority is aimed at providing such assistance to States in which is potential for using forest resources for energy. This aid would age States to initiate their own wood energy development ms.

AGRICULTURAL BIOMASS ENERGY

gricultural residues constitute a large tonnage of biomass. Accord-

Department of Agriculture estimates, plant wastes—such as straw, corncobs and stalks, and sugarcane bagasse—total about lion tons of organic solids per year. Farm animals, many of are confined in feedlots or broiler operations, generate another llion tons of organic solids yearly. These residues represent an ant, and at present largely untapped, energy source. The net yield from 1 ton of dry organic waste is equal to approximately rels of oil. Assuming that only a portion of the potential energy icultural biomass is recovered, it is estimated that the annual yield could come close to the energy supplied by 160 million of oil, not only a significant contribution to our energy sup- but the equivalent of all gasoline and diesel fuel now used in g.

ddition to the use of residues for energy, agricultural commodi- n be processed to yield both high-value ingredients for food, ani- ed, and fiber and feedstocks for energy production. For ex- , corn can be processed to remove the germ, gluten, oil, and other cts for food uses, while using the remaining starch to make l.

chnique involving agricultural biomass energy that has received tention is the manufacture of gasohol, a mixture of 90 percent ie and 10 percent alcohol. Alcohol can be produced from a wide y of agricultural crops and waste residues—all the way from dities such as corn and sorghum to waste products such as ane bagasse, peanut hulls, citrus pulp, or commodities that have ut of condition in storage.

AGRICULTURAL BIOMASS ENERGY CENTERS

help realize the great potential for energy production from ltural commodities and residues, the amendment establishes st four Agricultural Biomass Energy Centers, each in a dif- region of the Nation, in areas in which there is intensive use land for growing agricultural commodities. Where feasible, enter would be located at an existing agricultural research facil- the Department of Agriculture.

ler the direction of the Agricultural, Forestry, and Rural En- Board, each center would perform research, provide technical nce, and operate demonstration projects relating to agricul- biomass energy production and use, and energy production, use nservation in rural areas within the region, and train extension nel to conduct agricultural biomass energy workshops. Like the Energy Centers, these would be centers of excellence making the

best technical expertise available to farmers and others in the area. Expenditures of \$30 million would be authorized for the annual operating costs of these centers.

To accelerate production of energy from agricultural commodities and residues, S. 1775 would direct the Secretary of Agriculture to implement a workshop, training, information dissemination, and technical assistance program on small-scale agricultural biomass production for farmers and rural residents and communities. The program would be conducted by the cooperative State extension services in areas in which there is intensive use of the land for agricultural production. To the extent feasible, at least 100 workshops would be conducted annually.

LOANS AND DEMONSTRATION GRANTS

It appears that farmers, ranchers, and rural businesses may have problems in convincing banks to loan them money for rural projects that are new and innovative. For example, a poultry producer in Georgia is presently thinking about purchasing corn, and using starch in the corn to make alcohol on a small scale, and feed the residual material, called distiller's dried grain, which is high in protein, to poultry. The corn primarily would be used for feed. The alcohol would also be produced—increasing the farmer's income and reducing our dependence on imported oil.

Since the feedstock used to furnish the heat to distill the alcohol from the corn would be wood, every gallon of alcohol produced by this small-scale unit would be replacing its energy equivalent of imported oil. There is only one problem—private lenders are reticent about this new idea. Either a Federal loan or loan guarantee is needed before private capital will participate in financing an innovative project.

To spur the investment of private capital in rural energy production, needed to meet the goals of the rural energy program, an amendment to the bill provides discretionary authority to the Secretary of Agriculture to assist projects for agricultural and energy production and use, and energy conservation in rural areas through grants, loans, and loan guarantees. The amendment provides for annual funding of up to \$100 million for demonstration grants, \$500 million for direct or insured loans, and \$500 million for loan guarantees for this assistance.

The amendment requires that the demonstration grants beginning in fiscal year 1981—direct or insured loans be subject to the appropriations process and only authorizes these programs for fiscal year 1984. The loan guarantees use the Commodity Credit Corporation as the funding source and are subject to the appropriations process after fiscal year 1980.

With respect to the use of wood for energy, a tremendous potential for energy production exists based upon the amount of wood available for use. In recognition of this great potential, all of all loans and loan guarantees would be earmarked for wood energy projects.

The \$100 million authorized for demonstration grants would be used as seed money to get new and promising

arted. Each grant would most likely be used for planning and design purposes, although some of these funds may be used for a portion of the actual cost of constructing the projects. Used in this manner, many projects could be assisted with grants.

With an adequate amount of grants used as seed money, a direct grant and loan guarantee program is the best and most cost-effective way the Federal Government can stimulate renewable resources energy production and rural conservative efforts.

Under the loan guarantee program, private capital will be used to finance the projects. The Federal Government would only guarantee loans against default. The loan guarantee program should cost the Government little or nothing since only those projects with demonstrated potential would be approved.

With direct loans, the interest charged would be at least the cost to the Government of borrowing money, so that the direct loan program should have minor effect on the budget.

The grant, loan, and loan guarantee programs will stimulate the development of new techniques, especially those well suited for small-scale application, that will lead to greater availability and increased use of alcohol and other biomass fuels on a nationwide basis. They would assist significantly in reducing our dependence on foreign oil—a goal that President Carter has now set as the highest national priority. But there would also be direct benefits to farmers, consumers, and taxpayers with the development of new markets for farm products, lower costs of Government price support programs for the agricultural commodities that are used for energy, and increased fuel supplies.

To avoid any duplication of financial assistance for large-scale alcohol projects available through other programs of the Federal Government, however, the amendment requires that no alcohol project would produce more than 1 million gallons of alcohol annually be approved for financial assistance without the concurrence of the Secretary of Energy. Criteria for the concurrence of the Secretary of Energy with respect to other biomass projects would be developed by the Secretary of Agriculture and Secretary of Energy.

The amendment also requires that the amount of petroleum and natural gas energy used for such projects may not exceed the amount of energy in the alternative fuel produced. It further provides that priority for financial assistance must be given to those projects that use agricultural forestry biomass as the fuel used in the production of alternative fuels.

CONSOLIDATED FARM AND RURAL DEVELOPMENT ACT LOANS

To further assist in developing the production and use of alternative fuels and in conserving the use of existing fossil fuels, the amendment authorizes the use of the Consolidated Farm and Rural Development Act loan program for energy-related loans to farmers, rural industries and communities, and rural electric systems.

The amendment authorizes farm ownership loans for nonfossil fuel energy systems used in farm operations and farm operating loans for farm equipment that uses energy derived from renewable resources or that increases energy conservation. The use of \$50 million for such

farm ownership loans, and \$20 million for such farm operating loans, would be authorized for each of the fiscal years 1981 and 1982.

Also authorized would be rural industrialization loans for commercially feasible projects to produce renewable resources energy. The use of \$20 million for direct loans, and \$250 million for guaranteed loans, for such projects would be authorized for each of the fiscal years 1981 and 1982.

The amendment authorizes loans for rural electric systems for projects to generate electricity using nonfossil fuel sources. The use of \$25 million for such loans would be authorized for each of the fiscal years 1981 and 1982.

REA GRANTS

The amendment would also authorize the Administrator of the Rural Electrification Administration to make grants in fiscal years 1981 through 1984 to rural electric borrowers for projects demonstrating alternative energy and energy conservation technologies, including small-scale hydropower, geothermal, wind, solar, and biomass projects. Appropriations would be authorized for such grants as follows: \$10 million for fiscal year 1981, \$20 million for fiscal year 1982, \$25 million for fiscal year 1983, and \$30 million for fiscal year 1984.

CONSERVATION COST SHARING

The Department of Agriculture estimates that 15 to 20 percent of all energy used in farming can be saved through the application of conservation measures. The amendment directs the Secretary of Agriculture to provide cost sharing and technical assistance to farmers under the agricultural conservation program to encourage the application of energy conservation measures such as shelter belts on farmsteads and feedlots, establishment of minimum tillage systems for crop production, and energy-efficient irrigation water management.

CAUTION NEEDED

While there is great promise in wood and agricultural biomass as alternative forms of fuel, we must exercise caution because the land does not issue its bounty without extracting a price.

We must continue to stress conservation—conservation of fuels, conservation of materials, conservation of our soils, and conservation of our water.

We must not take so much biomass material from the land that the soils are depleted and eroded. Obviously, research is needed to determine what the biological limitations of the use of biomass for energy may be.

We must be careful that we do not jeopardize the Nation's food and timber supply in our zeal for alternative sources of fuel. But even with these considerations in mind, I believe that there are many opportunities that we must begin to take advantage of in order to lessen our dependence on foreign oil.

MEETING RURAL AMERICA'S ENERGY NEEDS

This amendment is tailored to fit the needs of agriculture and rural America. It is not designed to compete with or duplicate, in any way,

the energy efforts of other Federal agencies. It sets in place the necessary programs within the Department of Agriculture to tap the potential that our farmers, ranchers, and other rural residents, businesses, and communities have in moving to the use of alternative energy sources and reducing energy consumption.

The various agencies of the Department of Agriculture already work closely—face to face—with rural individuals and groups. The local and decentralized delivery system of the Department of Agriculture's agencies for research, development, information transfer, and financial assistance is well suited to get the job done. No other Federal agency or Department has the delivery system to develop the potential that exists in rural areas to reduce our dependence on imported oil and natural gas.

In summary, Mr. President, this amendment represents the view that small-scale production of alternative fuels from agricultural commodities and forestry products offers one of the most practicable and least costly ways of filling the Nation's energy gap. I believe it will greatly benefit not just rural America but the entire Nation.

Mr. President, as I have stated, the amendment incorporates changes in S. 1775 that have been suggested by the Committee on the Budget and the Committee on Energy and Natural Resources. I believe it has been discussed with the distinguished floor managers of the bill on both sides of the aisle. I hope that they are ready to accept the amendment.

Mr. JOHNSTON. Mr. President, will the Senator yield?

Mr. TALMADGE. I yield.

The PRESIDING OFFICER (Mr. Exon). The Senate will please be in order.

Mr. JOHNSTON. Mr. President, there has been a great deal of discussion over a long period of time and a lot of work in the Agriculture Committee which, of course, the distinguished Senator from Georgia chairs, as well as in our committee. The fruit of much of that staff work is represented by this amendment. I am frank to say, Mr. President, that I have not read the amendment. It is rather lengthy, 60-some pages, I think, in length. However, I have been given a brief description of this program.

From the description, Mr. President, and from what the staff has briefed me on, it appears to be a constructive and worthwhile program. I do not believe it duplicates the work of the Committee on Energy and particularly does not replicate that which we have already done in the amendment just adopted.

I make that statement, not with great confidence as to its accuracy, but simply representing a quick judgment on my part. Therefore, Mr. President, I am willing to accept that amendment, of course with the understanding that we shall have to get into the amendment as we go to conference. If there are some things to be reconciled, some amounts to be dealt with, we shall simply do the best we can. I know the Senator understands that.

I congratulate the senior Senator from Georgia for his work in gasohol in rural America. He is the Senate's recognized leader in agricultural matters, the champion of rural America. Of course, this amendment of his has the goal of making rural America to the extent of 50 percent energy self-sufficient by the year 2000. The amendment *moves in that direction*.

With that understanding, Mr. President, we shall accept the amendment.

Several Senators addressed the Chair.

The PRESIDING OFFICER. The Senator from Georgia.

Mr. TALMADGE. Mr. President, I am grateful to the distinguished Senator from Louisiana, the floor manager of the bill. I point out that this country is in an economic war. We have only two alternatives. One is to send troops to the Middle East and take the energy; the other is to develop the energy resources of this country.

The one viable, immediate alternative that we have that is short range is to develop alcohol and other fuel from biomass—agricultural products, wood, and agricultural waste products. That can be done in a matter of months. I think there is overwhelming support throughout the country for moving and moving now. We have delayed far too long.

This bill was reported unanimously from the Committee on Agriculture and Forestry, is cosponsored by 35 Members of the U.S. Senate and has overwhelming interest throughout this country. The time is now, not later. We should have done it years ago. We have been dilly-dallying around.

I appreciate very much that the distinguished floor manager of the bill accepts the amendment. I yield to my distinguished friend from North Carolina, the ranking minority member of the committee.

Mr. HELMS. I thank the Chair. I thank the distinguished Senator from Georgia.

RENEWABLE ENERGY FROM AMERICA'S FARMS

Mr. President, as ranking minority member of the Senate Committee on Agriculture, Nutrition, and Forestry, and as an original cosponsor of S. 1775 with Senator Talmadge, I commend this amendment to the distinguished managers of the bill. I hope they will accept it.

Our committee, under Senator Talmadge's able leadership, has worked hard to refine this proposal into the best possible form. It has been my pleasure to work with the Senator from Georgia and other members of the committee.

The amendment now before the Senate reflects that effort and the changes made to accommodate concerns expressed to us by the Committee on the Budget and the Committee on Energy and Natural Resources.

S. 1775 on which this amendment is based, is a sound proposal designed to encourage production of alternate fuels and to promote energy conservation in the near future on our farms and rural areas.

The amendment requires the Secretary of Agriculture to assess agricultural, forestry, and rural energy needs and resources. And, it stipulates that the Secretary will assess the potential for the production and conservation of energy from those renewable resources. The amendment then provides for a program to meet rural energy goals through research, extension, demonstration projects, loans, grants, and cost-sharing programs.

There is a tremendous potential for America to work itself out of the energy crisis. But that potential does not lie with the Government

or in Washington; it lies in the private sector and on the farms in our rural areas.

This country can have the benefit of abundant biomass and alcohol fuels if we will just let the free enterprise system function. If we do that, the tremendous creative energy of our people will allow this country to have the energy resources it needs for continued growth and prosperity. Indeed, we are already witnessing the success of several forms of biomass conversion. Already developed are such things as gasohol distilled from grain crops, methane distilleries, and production of forestry wastes into pelletized fuel.

The wood and biomass energy centers provided for in this amendment will serve as research banks that will facilitate a coordinated approach to the advancement of technology to more efficiently produce and make use of agricultural energy. Building upon activities at existing institutions, these wood and biomass energy centers will perform research, provide technical assistance in cooperation with agricultural extension service workers, and operate and supervise demonstration projects. Their work on energy production, use, and conservation in the rural areas within their respective regions will make these centers one of the best bargains the taxpayers will have going.

Of course, this important research would all be for naught without extension's activities to deliver the knowledge and techniques now existing and soon to be developed at the energy centers and elsewhere. Through an extension program of workshops, training, information dissemination, and technical assistance, interested local citizens will be instructed in the latest methods of producing and conserving agricultural energy.

These extension activities will make use of an existing network of skilled personnel. As a result of extension's past successes the American farmer stands unquestionably among the world's most productive.

Paralleling the efforts of extension will be the equally capable State forestry agencies, which are authorized grants for additional State foresters who will provide technical assistance to forest landowners in producing wood for energy and, in turn, energy from wood.

The amendment also provides for incentives in the form of loans and some very limited cost sharing so that those who are otherwise capable might be financially able to undertake the creative activities that this legislation is intended to promote.

A program of direct and guaranteed loans is established, with appropriate restrictions to assure there is no duplication between the Departments of Agriculture and Energy. The Consolidated Farm and Rural Development Act is amended to permit existing loan programs to accommodate rural energy production and conservation needs. The forestry incentives program is changed so cost-sharing assistance provided under that program may be used for timber to produce wood energy. A pilot program is authorized for the Secretary of Agriculture to make loans to private forest landowners who use forest management practices designed to increase the production of wood. And, the Administrator of the Rural Electrification Administration is authorized to make grants to rural electric borrowers for projects demonstrating alternative energy and energy conservation technologies.

Mr. President, the point that must be made about this legislation is that it addresses our energy problems in a very reasonable manner. It does not ignore existing agencies and programs; it does not give rise to a new bureaucracy; and it does not call for the exorbitant Federal outlays we find in other energy bills in Congress today. Excessive Government regulation in the past has swamped energy production in a mire of debilitating redtape. This amendment does not repeat that mistake. It correctly recognizes the private sector as the appropriate vehicle for pulling ourselves out of the energy crisis into which excessive Federal regulation has thrown us.

This is a sound, reasoned approach to one major aspect of our energy predicament. America could have been energy independent decades ago if the kinds of things we anticipate happening because of this legislation were not prevented by Federal rules and regulations. There is no advantage in further delay in getting about the business of encouraging the free enterprise system to work our way out of our energy shortages.

Mr. CHURCH. Mr. President, I want to say a word in commendation to the distinguished Senator from Georgia for this proposal. As I understand it, it is not offered as a substitute for title II in the bill.

Mr. TALMADGE. The Senator is entirely correct. It is a new title of the bill.

Mr. CHURCH. It is meant to be supplementary to the provisions of the bill.

Mr. TALMADGE. Exactly.

Mr. CHURCH. I notice in the purposes, the first purpose stated is "To facilitate the production for direct application in on-farm and rural energy situations," where there is a great opportunity to do this on a small-scale basis.

Mr. TALMADGE. The Senator is entirely correct.

We can have thousands and thousands of these small plants on forks of every creek in the Nation, where they have the most available and the most cost-effective material source that can be found.

Mr. CHURCH. Moreover, there is a very real need for alcohol for on-farm uses.

Mr. TALMADGE. The Senator is entirely correct.

Thousands and thousands of farmers throughout the United States now want to produce their own energy to use on their own farm, which they can do now.

Mr. CHURCH. I think this is a very badly needed program. I congratulate the Senator for offering it.

I notice on page 6 of his proposal that, once again, the statement is made that part of the purpose of this proposal is to make changes in existing programs and authorities of the Department of Agriculture consistent with and not duplicative of programs and authorities of the Department of Energy.

Mr. TALMADGE. The Senator is entirely correct.

Mr. CHURCH. It underscores the supplementary aspect of the proposal.

Mr. TALMADGE. The Senator is entirely correct.

I appreciate the support of the distinguished Senator from Idaho. I am grateful, indeed, for the enormous amount of work he has done in this particular field.

(Several Senators addressed the Chair.)

Mr. TALMADGE. Mr. President, I do not have the floor.

Mr. CHURCH. I have the floor and I will yield the floor.

The PRESIDING OFFICER. The Senator from Iowa.

Mr. CULVER. Mr. President, as an original cosponsor of S. 1775, the Agricultural, Forestry and Rural Energy Act of 1979, I wish to express my strong support for this amendment. It is now clear that this country will be embarking on a program that will provide us with synthetic fuels to relieve our crippling dependence on foreign oil. While the synfuels program may offer a long-term solution we all recognize that it will be years before the first commercial quantities will flow to the consumer.

Alcohol fuels from renewable resources offer much earlier relief from motor fuel shortages through gasohol and diesohol. Ethanol production technology is well developed; and with the use of non-petroleum fuels, cogeneration of process heat, solar and other energy sources, gasohol use may save 1 gallon of gasoline or natural gas equivalent for each gallon of ethanol used. The Office of Technology Assessment has estimated that the potential exists to replace 18 percent of our gasoline use with gasohol using crops, crop residues, forage crops and considerably more if we add wood as a feed stock.

Having the potential, Mr. President, is one thing. Reaching it is another. Our current ethanol capacity is 15-20 million gallons per year. To reach our potential, we need 100 times that amount. The program being proposed can provide the support that is needed for on-farm production that can help assure that oil shortages will not endanger our food supply. The proposed research centers will be able to improve the efficiency of small stills and develop improved feedstocks.

Mr. President, the Nation is ready for gasohol now. The largest gasohol plant in the country is being built in Sioux City, Iowa. Phillips Petroleum is test-marketing gasohol in two Iowa cities and many small independents are blending their own gasohol. The demand is now so great that a major gasohol company in New York will be importing 120 million gallons of ethanol from Brazil, a country that is converting to gasohol now and is looking toward a future with automobiles using alcohol alone.

Mr. President, just as we must speed the development of synthetic fuels, we must move quickly to expand our capacity to produce fuel from renewable resources.

Mr. DOLE. Mr. President, the Senator from Kansas is pleased to join with the distinguished chairman of the Senate Agriculture Committee, Mr. TALMADGE, the ranking minority member, Mr. HELMS, and other members of the Senate Agriculture Committee in introducing this amendment, the Agricultural, Forestry, and Rural Energy Act of 1979. Being a member of the National Alcohol Fuels Commission, I am particularly interested in the purpose of this measure and the benefits it will bring to this Nation at a time when domestic energy production is so desperately needed.

GOAL OF THE PROGRAM

Mr. President, this bill addresses the needs of each and every farmer whose farming operation has been touched by the shortages in diesel

and gasoline. The bill also addresses the production of alternate fuel on a small scale from agricultural and forestry products in a practical and less costly approach than the massive synfuel programs the Senate now has under review. In addition, methods to conserve the amount of energy used by farmers, rural residents, and rural communities are provided in this legislation.

Simply, Mr. President, this bill requires the Secretary of Agriculture to implement within the Department of Agriculture an agricultural, forestry, and rural energy production program of utilization and conservation. Its goal is to enable the United States to reach net energy independence by the year 2000 and a 50-percent reduction in petroleum and natural gas use by rural residents and communities.

This bill will establish research, extension, demonstration, loan grant, and cost-share programs necessary for the effective implementation of the program.

ENERGY FROM WOOD AND ITS WASTES

It is estimated today that 2 percent of our energy needs come from wood. It is also estimated that our forests can produce up to 8 quadrillion Btu's or one-tenth of our national energy needs for this year and every year in the future. With this bill enacted, those figures could go even higher. It should be made clear that this bill would not cut for supplies of wood which are now being used for construction, paper, but the residues of those products. With this use of timber wastes, we are utilizing valuable materials once thought to be waste and also are building a new forest industry alongside of the timber and paper industries today.

There are many technologies for utilizing wood into energy form—the most promising method is the use of chips and solid wood in newly developed wood-burning furnaces and boilers which are highly efficient and pollution free. Another technology is the process known as pyrolysis. This process takes the solid form and transforms it into char, oil, and gas and can be used by large energy users who can retrofit existing oil and natural gas furnaces. There is also a developing technology in total gasification of wood and also home heaters on the market that can operate 5 to 10 times more efficiently than old fashioned fireplaces. All of these technologies are workable in converting wood to energy cleanly, efficiently, and economically.

ENERGY FROM COMMODITIES

Another alternative fuel this bill addresses is that of alcohol. This alternative, ethyl alcohol, or ethanol, can be produced with existing technology from a wide variety of crops and waste products. The commodities which can be used range from corn to waste product such as peanut hulls. These new processes can be refined and put to on-farm and small scale commercial applications. In Kansas, there are numerous gasohol operations and the interest in setting up large scale operations is growing day by day. This alternative fuel, alcohol will create a new crop for the farmer—an energy crop—which can be grown profitably. The implementation of these operations on many farms across this Nation could foreseeably change the net income of the U.S. agriculture industry.

As my colleagues know, I have been a long-time supporter of gasohol—during my first year in the Senate, I introduced a bill which would allow for development of gasohol fuels with farm commodities by providing funding for pilot projects. Years later, Mr. President, the gasohol industry has seen many advancements made, such as the inclusion in the Food and Agriculture Act of 1977 the requirement that the Secretary of Agriculture provide for four pilot projects for the production of gasohol from agriculture and forest products through Commodity Credit Corporation loan guarantees of up to \$50 million.

Since the passage of that measure, I have been contacted at least once a day by individuals interested in alcohol production and plans they have designed to increase alternative energy production utilizing farm and forest products.

Mr. President, this country has gone through a trying period in regards to our energy supplies and the energy outlook to the future. There are many bills before the committees in both the House and Senate which promise to bring fuels from sources such as tar sands, shale oil, and even the sea. However, Mr. President, all these technologies have been accompanied by high prices and time constraints. What the measure presents to us is technology that has been developed and ready now. The sources for the fuels—agricultural and forest commodities and wastes—are here now. What is needed is the structure provided in this measure for these commodities and technology to work effectively together.

Mr. President, I urge my Senate colleagues to join me in supporting this measure.

The PRESIDING OFFICER. The Senator from Minnesota.

Mr. BOSCHWITZ. Mr. President, I, also, join in support of this amendment. I join with the distinguished Senator from Georgia who says that this is a quick way to implement an energy program, a quick way with quick resources, renewable resources.

Through the Department of Agriculture which has already in place a system through which much of it can be implemented, I believe that it will make a meaningful impact on reducing the necessity for foreign oil and putting self-dependence back in our country.

AGRICULTURAL FORESTRY AND RURAL ENERGY ACT OF 1979

Mr. President, the United States is dependent upon huge quantities of oil and natural gas. Over three-fourths of this Nation's energy needs are filled by petroleum and natural gas. The supplies of these fuels are finite and will eventually be exhausted.

The United States is currently heavily dependent on foreign sources for these fuels. About half of the oil consumed in this country is imported. This Nation, since 1973, has become painfully aware that foreign sources of oil are very uncertain. The only certainty about foreign oil is that prices since 1973 have skyrocketed. There is every indication that there will be continued wild and sudden price hikes.

This heavy dependence on foreign oil has taken a heavy toll on the Nation's economy. The rising cost of energy imports has been the major factor in the U.S. trade deficit. This has depreciated the value of the dollar and has served as a major contributor to inflation in this country.

It is absolutely essential that the United States reduce its dependence on foreign oil. Every reasonable means of increasing domestic production of energy must be pursued.

The President, and most of the Members of Congress, in wrestling with this energy problem, have placed most of their emphasis on synthetic fuels—tar sands, oil shale, et cetera. I am quite sure that synthetic fuels have some potential for reducing the Nation's dependence on foreign oil. But these synthetic fuel technologies are essentially unproven, very costly, potentially damaging to the environment and require large plants which would take several years to construct and become operational.

Congress must not overlook or underestimate the potential for other less exotic means of adding to the Nation's energy supply.

Production of energy from agricultural and forest producers will of course not provide the total answer to the Nation's energy problem. But agriculture and forestry do offer good potential to increase domestic energy production.

In a recent study conducted at Purdue University it was estimated that between 1.5 and 2.3 billion gallons of alcohol could be produced from agricultural crop residues in this country. This estimate takes into account crop residues necessary to control erosion and maintain fertility. This estimate is also based on the assumption that it would only be feasible to collect crop residues in States with the highest concentrations of crop residues—13 States mostly in the Corn Belt and Great Plains. In addition, the study also assumes that it would be feasible to use only two-thirds of these residues for alcohol production. So you can see this is a reasonable and conservative estimate.

In addition, in the same study, it was estimated that from 5.2 to 8.7 billion gallons of alcohol could be produced from bringing additional land into production. It was also estimated that 2.7 to 6 billion gallons of alcohol could be produced through improved production of forage crops.

The study's total estimate of technically feasible alcohol production potential from agricultural crops and residues ranges from 11 to 18.6 billion gallons. These estimates are technical in nature and do not consider the economics of energy production from agricultural crops and residues. But this Nation should not, and really cannot, afford to ignore this energy production potential.

Big Farmer magazine in its August 1979 issue reviews some of the currently available farm level technologies for manufacturing alcohol from biomass and methane gas from livestock manure. The equipment and methods discussed in this magazine article were all developed by innovative farmers, usually in an attempt to become energy self-sufficient in their farm operation. Most of the equipment discussed in this article is currently, or in the near future will be, available for sale to other farmers.

There is tremendous interest in producing energy from agricultural and forest products. My office, and I am sure the offices of many of my colleagues, have received inquiries about Government efforts to promote development of alternative sources of energy from agriculture and forestry.

Enactment of this amendment will allow Government to do more. This bill gives the Department of Agriculture the authority to provide the applied research, technical assistance necessary to push this coun-

ry toward development of agriculture's full energy production potential. In addition the bill gives the Department the authority to undertake initiatives to encourage conservation of energy in agriculture.

SUMMARY OF MAJOR PROVISIONS

This amendment establishes a Rural Energy Board to implement agricultural, forestry, and rural energy production use and conservation program.

It authorizes research, extension, demonstration, loan, loan guarantee, grant, and cost share programs to carry out implementation of this rural agricultural, forestry, and rural energy program.

RURAL ENERGY BOARD

The amendment establishes an Agricultural, Forestry, and Rural Energy Board made up of the top officials of the Department of Agriculture and the Department of Energy. This Rural Energy Board is mandated to assess agricultural, forestry, and rural energy needs. Upon completion of the assessment of needs and resources, the Board is to develop an agricultural, forestry, and rural energy production use and conservation program which will enable the United States to meet the goals set in this legislation—net energy independence for agriculture and forestry and a 50-percent reduction in the use of petroleum and natural gas by rural residents and communities, by the year 2000.

AGRICULTURAL RESEARCH AND EXTENSION

The amendment provides for applied research and extension programs in energy production and conservation to be carried out by the Department of Agriculture and at the State level by universities and State extension services. The amendment provides for appropriations of up to \$50 million annually for applied research by colleges and universities. Our amendment authorizes appropriations of up to \$50 million annually under the Smith Lever Act and annual appropriations of up to \$5 million under the Renewable Resources Extension Act of agricultural, forestry, and rural energy extension work by the State extension services. It also directs the Secretary of Agriculture to implement a workshop, training, information dissemination, and technical assistance program on small scale agricultural biomass energy production for farmers to be carried out by the State extension services.

In addition, it authorizes the establishment of Wood Energy Centers and Agricultural Biomass Centers. Up to \$30 million is authorized to be appropriated annually for not less than four nor more than eight of each of these types of centers—\$60 billion total. Each of these centers would be located in a different forest region in the case of Agricultural Biomass Energy Centers. Each of these centers would perform research, provide technical assistance, and operate demonstration projects relating to energy production, use, and conservation within the respective region of the country the centers serves.

LOAN, GRANT, AND COST SHARING PROGRAMS

The amendment authorizes the Secretary of Agriculture to make direct loans of \$250 million, and to provide \$500 million in loan guaran-

tees for on-farm or commercial projects for the production of energy from agricultural commodities and forestry products. This program would be carried out through the Commodity Credit Corporation with one-third of these loans allocated to wood energy projects. In addition, up to one-half of the direct loans and one-fourth of the loan guarantees would be allocated to small scale projects.

It also authorizes \$50 million in farm real estate loans for nonfossil fuel energy systems and \$20 million for operating loans for these systems in fiscal years 1981 and 1982.

Also, in fiscal years 1981 and 1982, the bill authorizes \$20 million in direct loans and \$250 million in loan guarantees for commercially feasible energy projects using renewable resources and \$25 million to rural electric systems for projects to generate electricity using sources of energy other than petroleum and natural gas.

The amendment also establishes a 5-year pilot loan program for improving forest management practices on privately held forest land. Up to \$5 million in direct loans and \$5 million in guaranteed loans could be obligated annually with no loan or loan guarantees made in excess of \$50,000 per landowner.

Several grant programs are authorized by this amendment. It provides for grants of up to \$100 million annually for demonstration projects producing energy from renewable resources. The amendment also authorizes grants of \$8.5 million annually to State foresters to provide technical assistance to private landowners in producing wood for energy. In addition it provides for grants to rural electric utilities for projects demonstrating alternative energy technologies such as wind, solar, biomass, and so forth. These grants would be for \$10 million, \$20 million, \$25 million, and \$30 million in fiscal years 1981 through 1984, respectively.

The amendment also provides for cost sharing assistance under already existing programs for energy production and conservation. The amendment makes land used to produce wood for energy eligible for cost sharing assistance for reforestation under the forestry incentives program. In addition, it will provide cost sharing under the agricultural conservation program for energy conservation measures such as establishment of shelter belts, use of integrated pest management, use of minimum tillage methods, and so forth.

Alcohol fuel skeptics continually raise questions about the wisdom of developing a national alcohol fuels program. Two of the frequently raised questions concern net energy balance and the feasibility of small farm scale production technology.

FEASIBILITY OF FARM-SCALE TECHNOLOGY

The Office of Technology Assessment (OTA) in a recent report expressed general optimism about the potential for alcohol production to add to the Nation's supply of motor fuel.

But OTA was very pessimistic about the economic feasibility of farm-scale biomass conversion to alcohol. Yet at the same time OTA reports that the Bureau of Alcohol, Tobacco, and Firearms (BATF) expects to receive 5,000 applications for on-farm alcohol distillation permits.

Apparently the OTA believes that farmers are not rational economic people. OTA apparently believes that they possess knowledge or information that farmers do not possess. I can assure you that farmers are the most rational of economic men. They operate in a competitive business environment, not in an office building here in Washington.

Farmers are interested in alcohol production for fuel because it will open up a whole new market for their products. They are particularly interested in farm-scale production because it would give them the opportunity to move up the marketing chain—to earn a return for marketing and processing the product as well as producing it. Of even more importance to farmers, is that on-farm production of alcohol would allow farmers to become energy self-sufficient.

NET ENERGY BALANCE

Almost from the time people began to consider alcohol as an alternative fuel, oil company executives and others have cited figures to show that alcohol production yields an energy loss, that it takes more energy to produce the alcohol than the energy contained in the alcohol itself.

The figures cited were based upon beverage alcohol production in older, less-energy-efficient plants. Fuel-grade alcohol needs less refining than beverage-grade alcohol, thus requiring less energy input. In addition, most beverage alcohol distilleries were built many years ago when energy costs were less, and efficient energy use was not nearly so important.

In a recent Department of Energy publication it is reported that when using corn as a feedstock, even considering the energy used in the production of the corn, a distillation plant using modern technology will yield a positive net energy balance.

Although absolute energy balance is important in deciding whether to convert a product into alcohol, an even more important consideration is how much petroleum or natural gas can be displaced in the process. In the recent OTA report it was cited that every gallon of ethanol—grain alcohol—used for fuel could save between $\frac{1}{3}$ and 1 gallon of gasoline, depending upon the energy source used in producing the alcohol.

I have explained very briefly what the amendment does, and why it is needed, and I have attempted to answer some of the questions directed at the amendment. I now ask my colleagues to support the amendment. Our Nation needs it.

Mr. President, this amendment provides for \$500 million in loan guarantees and \$250 million in direct loans to be used specifically for the production of biomass energy. I have become very concerned about what agency, within USDA or the Department of Energy, will be responsible for administering these loans.

Under the 1977 Food and Agriculture Act, four pilot projects were funded for the production of alcohol from different agricultural commodities. The Office of Energy was chosen to be the agency within USDA to handle these four pilot projects.

Today, now over 2 years since the passage of the 1977 Farm bill, only one of the four loan guarantees have been granted.

Mr. President, it would be my hope that the Office of Energy would not be the agency responsible for the administration of these loan guarantees. Rather, it would be my hope that the Farmers Home Administration within USDA would be the agency to administer the loans.

I feel that the Farmers Home Administration should administer the loans because they already have a well defined review and distribution process for the loans they make. Each State has a Farmers Home Administration office, which stands ready to handle this lending authority.

Mr. President, I feel that it is very important to handle this loan authority through an agency which already has a well defined distribution process. I feel it is very important to handle this loan authority through an agency which is currently making loans to agricultural and forestry interests. And, Mr. President, the likely choice for this new authority is the Farmers' Home Administration.

The PRESIDING OFFICER. The Senator from South Dakota.

Mr. MCGOVERN. Mr. President, I am pleased to join with Senator Talmadge in offering this amendment.

As the members of the Committee on Agriculture know, this was a marriage of Senator Talmadge's proposal relative to the new energy legislation with the grain alcohols proposal I introduced some time ago.

The measure was reported out of the Committee on Agriculture, Nutrition, and Forestry unanimously. It has some 35 sponsors. I think it is an excellent formula to get us quickly into the production of alcohol fuels.

It does provide, as pointed out, some \$250 million in direct loans and \$500 million in Federal loan guarantees, with the amendment specifying that half of that money has to be designated for small plants.

I am very hopeful, Mr. President, that the amendment will be adopted. I think it strengthens the measure now before us and it is in the interest of the country.

Mr. President, I am pleased to join with the Senator from Georgia in offering this amendment to the alcohol fuels provision of this bill. Although I realize considerable effort was given to the development of the original language, I believe this amendment will better serve our Nation's needs to quickly commercialize alcohol fuels and gasohol technology.

Mr. President, unlike questionable synthetic fuel technologies, we have the technology and materials available today to immediately produce alcohol fuels and wood energy. Given our Nation's great need to take action which will reduce our dependence on foreign fuels both in the near future as well as through the next century, it is imperative that any energy legislation we enact contain strong provisions to develop these alternative energy resources.

The amendment we are proposing is the result of months of effort on the part of the Senate Agriculture Committee. This amendment contains the major provisions of the Agricultural, Forestry, and Rural Energy Act which was reported unanimously from the committee. It has more than 25 sponsors. The support for this legislation particularly from agricultural States has been overwhelming.

Mr. President, many of my colleagues and I prefer the language of this amendment over the present provisions of title II, because the emphasis the amendment places on small-scale alcohol-fuels development. The Agricultural Forestry, and Rural Energy Act provides \$250 million in direct loans for the construction of alcohol fuel plants as well as \$500 million in Federal loan guarantees. One-half of the direct loans and loan guarantees must be allocated for the development of small-scale plants which are defined as plants producing less than 2 million gallons annually.

The availability of small scale assistance is vital to the thousands of farmers who want to construct these facilities using their own farm products or waste as the fuel source. The allocation of these funds for small scale plants will not only allow our country to make immediate progress in reducing our fuel import dilemma, but will provide a critically needed market for agricultural commodities, and stimulate rural economies.

In addition this amendment would establish a total of eight wood energy and agricultural biomass centers throughout the Nation. These centers, similar to the regional solar energy centers would provide technical assistance and training in wood energy and alcohol fuels technology. This provision of the bill is especially important in light of the minimal alcohol fuels training presently available at a reasonable cost.

I firmly believe that the Congress would be redundant in enacting the existing language of this title and the Agricultural, Forestry and Rural Energy Act. However, I am equally convinced that the provisions drafted by the Senate Agriculture Committee are a more comprehensive response to the energy supply problems we face and will provide more benefits to our Nation's farmers.

THE PRESIDING OFFICER. The Senator from Alabama.

MR. STEWART. Mr. President, I join my colleagues in commending a distinguished Senator from Georgia for his excellent work in the field of alcohol fuels.

His particular emphasis on rural energy independence exemplifies, I think, the kind of contribution he has made on behalf of the people from the rural areas, not only of his State of Georgia, but all across America.

It is my pleasure to serve with him on the Agriculture Committee, which he chairs. It is my pleasure to join with him in cosponsoring his amendment. I hope it is accepted.

THE PRESIDING OFFICER. The Senator from Maine.

MR. MUSKIE. Mr. President, I wonder if I might address myself to the distinguished floor manager of the bill.

Amendments are being offered and accepted by the managers of the bill and by the Senate. I want to be sure that we have not lost sight of our budget targets.

With respect to this particular legislation, I understand that the compromise which the distinguished Senator from Georgia is offering presents a reduction in grants, direct loans, and loan guarantees, from those in the original bill. Am I correct in that impression?

MR. JOHNSTON. The question of the Senator—what is the level of

Mr. MUSKIE. I understand it is smaller than the levels provided in the original Talmadge bill. As I add it up, it is about \$100 million in grants in the first year, about \$250 million in direct loans—

Mr. TALMADGE. That is correct with respect to grants, direct loans and loan guarantees to be made through the Commodity Credit Corporation.

Mr. MUSKIE. And \$500 million in loan guarantees.

Mr. TALMADGE. That is correct.

Mr. JOHNSTON. The original level of authorization in the bill was \$623.5 million per year in loans and grants in various programs. That has now been reduced to an authorization for loan guarantees by \$500 million annually, which would leave, if I am correct—excuse me. First of all, these have been limited to 4-year programs.

It is now \$750 million in loan guarantees and \$500 million for energy production and conservation, but for the 4-year limit. It has been reduced below what it was as originally introduced.

Mr. MUSKIE. As I understand it, each of these programs is subject to the appropriations process?

Mr. JOHNSTON. They are subject to the appropriations process.

Mr. TALMADGE. That is correct except that CCC funding may be used for loan guarantees and direct loans during the first year.

Mr. BELLMON. Will the Senator yield?

Mr. MUSKIE. Yes.

Mr. BELLMON. That is not the case for 1980. There is a provision that allows \$250 million of direct loans, and \$500 million of loan guarantees, for the current fiscal year, which is not subject to the appropriation process. I am going to offer an amendment to cure that.

Mr. TALMADGE. The Senator is correct.

Mr. MUSKIE. We have approved the Exon amendment. I have discussed the effect of doubling or increasing the budget authority for a larger program of gasoline.

How does that fall within the budget totals provided in the second budget resolution?

Mr. JOHNSTON. I say to my distinguished friend, we are going to have to reconcile all these amounts. As I mentioned to the distinguished chairman of the Agriculture Committee, we took this amendment in the spirit that we are going to have to go to conference and get all these programs which, altogether, will not fit within the authorization as provided by the Budget Committee resolution.

Therefore, we are going to have to do some paring and shaving and fit them within that authorization.

The outlay impact, of course, is not very great. But the authorization is rather great.

Of course, that must conform to the budget resolution, as well. So it is within that spirit that we have accepted the amendment.

Mr. MUSKIE. I appreciate what the Senator has said. He said it to me privately as well as in this colloquy.

The Senator was a member of the conference on the budget, and he recalls, I am sure, quite vividly, the struggle we had with House conferees in establishing the Senate numbers, both for budget authority and outlays.

So, having come out of that struggle, the Senator and I are particularly sensitive to the concern of the House about these numbers.

is difficult to add them up as we go along, but I am reassured by what the Senator has said about his intentions in this respect.

Mr. JOHNSTON. I thank the Senator. We will have to pare them down. Then, the \$39.5 million in budget authority is provided in that solution.

Mr. MAGNUSON. Mr. President, will the Senator yield?

Mr. JOHNSTON. I yield.

Mr. MAGNUSON. I say to the Senator from Maine that all these items are subject to appropriation.

Mr. MUSKIE. Except for the first year.

Mr. MAGNUSON. I do not understand what the Senator from Oklahoma said about the first year.

Mr. JOHNSTON. I believe he has an amendment he is ready to submit.

UP AMENDMENT NO. 752 (TO UP NO. 751)

Mr. BELLMON. Mr. President, I have an amendment at the desk.

The PRESIDING OFFICER. The amendment will be stated.

The legislative clerk read as follows:

The Senator from Oklahoma (Mr. Bellmon) proposes an unprinted amendment numbered 752 to the unprinted amendment by Mr. Talmadge numbered 751: On page 50, strike "October 1, 1980" and insert in lieu thereof "October 1, 1979".

Mr. BELLMON. Mr. President, the purpose of this amendment is to make the 1980 fiscal year direct loans and loan guarantees subject to the appropriation process in the same way that the grants, direct loans, and loan guarantees are subject to the appropriations process in fiscal years 1981, 1982, 1983, and 1984.

Members should realize that this is a major spending thrust we are undertaking here, and I support in a general way what is being undertaken. But the total amount of the grants over the next 5 years, including 1980, are \$400 million; the total of direct loans, \$1.250 billion; and loan guarantees for the 5 years total \$2.5 billion.

I believe the Talmadge amendment is entirely appropriate in making these large expenditures subject to the appropriations process; I believe a mistake is being made here in not making the fiscal year 1980 direct loans of \$250 million and the \$500 million of loan guarantees also subject to the appropriations process.

In fact, if we adopt this amendment as it now stands, we are authorizing and appropriating in the same bill, and I believe that is a serious mistake for the Senate.

Mr. TALMADGE. Mr. President, I ask unanimous consent that the names of Senator Simpson, Senator Lugar, and Senator Jepsen be added as cosponsors of my amendment.

The PRESIDING OFFICER. Without objection, it is so ordered.

Mr. TALMADGE. Mr. President will the distinguished Senator from Oklahoma yield?

Mr. BELLMON. I yield.

Mr. TALMADGE. I read from the conference report on the Agricultural Appropriations Act for fiscal year 1980:

Amendment No. 56 provides a limitation of \$500 million on the amount of loans that can be guaranteed by the Commodity Credit Corporation for the production and marketing of industrial hydrocarbons and alcohols from agricultural commodities and various products as proposed by the Senate.

Does the Senator's amendment contravene this conference report?

Mr. BELLMON. Will the Senator tell me if that language also includes direct loans?

Mr. TALMADGE. No.

Mr. BELLMON. Then, the answer I have is that my amendment does not contravene; it supplements.

Mr. TALMADGE. If it supplements it, I have no objection.

The Senator has served on the Agriculture Committee with great distinction for many years. I know of his strong desire to make the country energy independent as rapidly as we can. The only way we can move short term to produce an alternative source of energy is, as the Senator knows, from alcohol. So if the Senator is not contravening this particular amendment, I have no objection.

What I want to do is to get our country in the business of producing alcohol and get it in that business fast. The Senator is not denying that right, is it?

Mr. BELLMON. The Senator is correct.

I am in support of what the Senator is trying to do, but I feel that we are moving rapidly in this area of energy legislation; that unless these activities are subject to the appropriation discipline, we are going to wind up with a lot of duplicating programs.

Mr. TALMADGE. What we are doing here, only for fiscal year 1980 is letting them guarantee loans up to \$500 million. Thereafter, it is subject to the appropriation process.

Mr. BELLMON. But there also are direct loans of \$250 million.

Mr. TALMADGE. That is correct.

Mr. BELLMON. My amendment would make that subject to the appropriations process.

I do not believe that this program necessarily will be slowed down by this amendment, because we will have a supplemental appropriations bill this spring and it will take a good length of time to get this program geared up, in any event.

Mr. TALMADGE. If the Senator will amend his amendment to make the \$250 million in direct loans subject to the appropriations process I would have no objection.

Mr. BELLMON. You based that on the limitation already contained in the fiscal year 1980 appropriations bill dealing with the loan guarantees?

Mr. TALMADGE. That is correct.

Mr. MAGNUSON. I say to the Senator from Georgia that we will have a supplemental, I imagine, early in January or February, and we can take up this matter. I do object to the legislative committees legislating and appropriating at the same time.

Mr. TALMADGE. No, I am trying to avoid that. What we are trying to do here is not to appropriate at the same time. But we do have provision for loan guarantees for fiscal year 1980 to be made through the Commodity Credit Corporation.

I have no objection to the amendment of the distinguished Senator from Oklahoma about the direct loans. If he wants to modify it and strike that provision, I will not object to it.

We are quibbling about \$250 million, and we will import \$70 billion worth of energy from OPEC next year. So what we are doing is real

quibbling over a small amount of money in trying to get something done.

Mr. MAGNUSON. We are not objecting to what the Senator is trying to do with the figures. We merely want them subject to the appropriation process.

Mr. TALMADGE. I have no objection, if the Senator from Oklahoma will modify his amendment to make the direct loans of \$250 million subject to the appropriation process.

Is the Senator from Oklahoma agreeable to that?

Mr. BELLMON. The suggestion by the distinguished Senator from Georgia is based on the fact that the \$500 million of loan guarantees already has been dealt with by the Appropriations Committee?

Mr. TALMADGE. That already has been done.

Mr. BELLMON. As soon as we get the language ready I will be glad to offer it.

Mr. TALMADGE. If the Senator will do that, I have no objection.

Mr. BELLMON. To make my amendment pertain only to the \$250 million in direct loans.

Mr. TALMADGE. I appreciate the cooperation of the distinguished chairman of the Appropriations Committee. I know that he is anxious to get this matter completed in a hurry.

Mr. BELLMON. Mr. President, I suggest the absence of a quorum, so that we can get the language ready.

The PRESIDING OFFICER. The clerk will call the roll.

The second assistant legislative clerk proceeded to call the roll.

Mr. McCCLURE. Mr. President, I ask unanimous consent that the order for the quorum call be rescinded.

The PRESIDING OFFICER. Without objection, it is so ordered.

Mr. McCCLURE. Mr. President, I ask unanimous consent that the amendment of the Senator from Oklahoma be laid aside temporarily, in order that I may offer an amendment to this title; that upon disposition of the amendment I offer, the amendment of the Senator from Oklahoma be the pending business.

The PRESIDING OFFICER. It would require that both amendments be laid aside.

Mr. McCCLURE. I want to offer an amendment to the Talmadge amendment.

The PRESIDING OFFICER. Is there objection? The Chair hears none, and it is so ordered.

UP AMENDMENT NO. 753 (TO UP NO. 751)

Mr. McCCLURE. Mr. President, I send to the desk an amendment and ask for its immediate consideration.

The PRESIDING OFFICER. The amendment will be stated.

The legislative clerk read as follows:

The Senator from Idaho (Mr. McClure) proposes an unprinted amendment numbered 753 to the unprinted amendment by Mr. Talmadge numbered 751.

Mr. McCCLURE. Mr. President, I ask unanimous consent that reading of the amendment be dispensed with.

The PRESIDING OFFICER. Without objection, it is so ordered.

The amendment is as follows:

On page 56, insert the following after subtitle:

SUBTITLE I—AGRICULTURE COMMODITIES UTILIZATION PROGRAM

SEC. 2020. Notwithstanding any other provision of law—

(a) The Secretary of Agriculture shall permit, subject to such terms and conditions as he shall prescribe, all or any part of the acreage set aside and diverted from the production of a commodity for any crop year under this title to be devoted to the production of any commodity for conversion into industrial hydrocarbons and blending with gasoline or other fossil fuels for use as motor or industrial fuel, if the Secretary of Agriculture determines that such action is desirable in order to provide an adequate supply of commodities for such purpose, is not likely to increase the cost of the price support programs, and will not adversely affect farm income.

(b) (1) During any year in which there is no set aside or diversion of acreage under this title, the Secretary of Agriculture may formulate and administer a program for the production, subject to such terms and conditions as he shall prescribe, of commodities for conversion into industrial hydrocarbons and blending with gasoline or other fossil fuels for use as motor or industrial fuel. In the program, producers of wheat, feed grains, upland cotton, and rice shall be eligible for incentive payments to devote a portion of their acreage to the production of commodities for conversion into industrial hydrocarbons and blending with gasoline or other fossil fuels for use as motor or industrial fuel.

(2) The payments under this subsection shall be at such rate or rates as the Secretary of Agriculture determines to be fair and reasonable, taking into consideration the participation necessary to ensure an adequate supply of agricultural commodities for conversion into industrial hydrocarbons and blending with gasoline or other fossil fuels for use as motor or industrial fuels.

(3) The Secretary may issue such regulations as necessary to carry out the provisions of this subsection.

(4) There are authorized to be appropriated such sums as may be necessary to carry out the provisions of this subsection.

Mr. McCLURE. Mr. President, I have discussed this amendment with the distinguished Senator from Georgia, the chairman of the Agriculture Committee, who is the author of the pending amendment with Mr. Helms, the ranking minority member of the Agriculture Committee.

This deals with the Agriculture Commodities Utilization program and it is what the Energy Committee recommends as subtitle I. It appears on page 161 of the committee report on the pending measure.

This is language which was identical to language which was before passed by this body and was later modified in conference with the other body and is now a part of Public Law 95-279.

Mr. President, very briefly it allows us to use the diverted acreage that is diverted under the diversion programs to be used for the production of crops that can be utilized in the alcohol production program.

The Energy Committee looked at this amendment and discussed it. We decided rather than try to adopt it in the committee and, if we have some conflict with the Agriculture Committee, we would come to the Chamber and offer it as a committee recommended amendment when we reached the Chamber.

Mr. TALMADGE. Mr. President, this authority is in existing law. I believe, however, it is discretionary at the present time, and if the Senator's amendment would make that mandatory.

Mr. McCLURE. Yes.

Mr. TALMADGE. I have no objection to it.

Mr. McCLURE. I thank the Senator from Georgia.

Mr. HELMS. I certainly have no objection to it.

Mr. BAYH. Mr. President, I only rise to say that this amendment makes good sense. Last year we spent \$10 billion to pay farmers to grow crops. Hoosier farmers do not like this, and city dwellers justifiably cannot understand it.

In 1977 I authored the bill, now law, to give the Secretary of Agriculture authority to permit farmers to grow energy crops on their set-aside acreage.

Why the Secretary of Agriculture has not used this discretion, I do not know.

This will certainly remedy that and begin to put those acres into corn and other kinds of crops that we can use to make alcohol.

Mr. JOHNSTON. Mr. President, we accept and agree to the amendment.

Mr. TALMADGE. Mr. President, what is the parliamentary situation?

The PRESIDING OFFICER. The question is on agreeing to the amendment of the Senator from Idaho.

(Putting the question.)

All those in favor signify by saying aye.

Those opposed, no.

The ayes appear to have it. The ayes have it.

The amendment was agreed to.

Mr. McCLURE. Mr. President, I move to reconsider the vote by which the amendment was agreed to.

Mr. HELMS. I move to lay that motion on the table.

Mr. METZENBAUM. Mr. President, before acting on the motion to reconsider may I ask the Senator—

Mr. HELMS. Mr. President, will the Senator use his microphone?

The PRESIDING OFFICER. The motion before the Senate is to table, and that motion is not debatable.

Mr. METZENBAUM. Mr. President, I do not think the motion to table was made prior to the time I was recognized.

The PRESIDING OFFICER. The Chair feels the Senator from Ohio is incorrect.

Mr. METZENBAUM. Mr. President, I suggest the absence of a quorum.

Mr. HELMS. Mr. President, if the Senator will withhold that, I made the motion to table. I shall withhold that so the Senator may speak.

Mr. METZENBAUM. I thank the Senator.

The PRESIDING OFFICER. The Senator from Ohio is recognized.

Mr. METZENBAUM. Mr. President, I only wish to be certain that the amendment by the Senator from Idaho that was just agreed to was an amendment to the Talmadge amendment having to do with gasohol. Is that my understanding?

Mr. McCLURE. That is correct.

Mr. METZENBAUM. I have no objection.

Mr. HELMS. Mr. President, I move to lay that motion on the table.

The motion to lay on the table was agreed to.

UP AMENDMENT NO. 752

The PRESIDING OFFICER. The question occurs on agreeing to the amendment of the Senator from Oklahoma.

Mr. BELLMON. Mr. President, I suggest the absence of a quorum.

The PRESIDING OFFICER. The clerk will call the roll.

The second assistant legislative clerk proceeded to call the roll.

Mr. BELLMON. Mr. President, I ask unanimous consent that the order for the quorum call be rescinded.

The PRESIDING OFFICER. Without objection, it is so ordered.

UP AMENDMENT NO. 752, AS MODIFIED

Mr. BELLMON. Mr. President, I have a revised amendment at the desk and I ask that it be stated.

The PRESIDING OFFICER. The amendment will be stated.

The legislative clerk read as follows:

The Senator from Oklahoma (Mr. Bellmon) proposes to modify his unprinted amendment numbered 752, as follows:

Mr. BELLMON. Mr. President, I ask unanimous consent that further reading of the amendment be dispensed with.

The PRESIDING OFFICER. Without objection, it is so ordered.

The amendment is as follows:

On page 50, lines 2-5, strike "and (2) beginning" through "appropriation Acts" and insert in lieu thereof, "(2) beginning October 1, 1980, may guarantee loans under this section only to the extent authorized in appropriations Acts, and (3) beginning October 1, 1979, may make or insure loans under this section only to the extent authorized in appropriation acts"

Mr. BELLMON. Mr. President, the amendment as redrafted does not do the things that the distinguished Senator from Georgia has requested. The new language would apply only to direct loans and would not cover guarantee loans which are already under an appropriations limitation.

Mr. TALMADGE. I understand that your amendment makes the \$1 billion direct loan program for fiscal year 1980 subject to the appropriations process.

Mr. BELLMON. That is exactly right.

Mr. TALMADGE. I have no objection.

The PRESIDING OFFICER. The question is on agreeing to the amendment of the Senator from Oklahoma.

The amendment was agreed to.

Mr. McCLURE. Mr. President, I move to reconsider the vote by which the amendment was agreed to.

Mr. BELLMON. I move to lay that motion on the table.

The motion to lay on the table was agreed to.

Mr. TALMADGE. I believe the amendment, as amended, is now in order.

The PRESIDING OFFICER. The Senator is correct.

Mr. BUMPERS. Mr. President, is there a time agreement on the amendment?

The PRESIDING OFFICER. There is no time agreement.

Mr. BUMPERS. Mr. President, will the Senator from Georgia yield to me for some questions?

Mr. TALMADGE. Yes; I yield.

Mr. BUMPERS. Under the Senator's amendment, are there any loan guarantees, or grants for the development of alcohol plants from urban waste?

Mr. TALMADGE. No.

Mr. BUMPERS. They are not?

Mr. TALMADGE. No.

Mr. BUMPERS. No. 1, how much is provided for loan guarantees under the amendment?

Mr. TALMADGE. The sum of \$500 million per year for 5 years.

Mr. BUMPERS. How much in direct loans?

Mr. TALMADGE. The sum of \$250 million per year for 5 years.

Mr. BUMPERS. How much in grants?

Mr. TALMADGE. The sum of \$100 million per year for 4 years.

Mr. BUMPERS. That is a total of \$850 million in direct loans, grants, and loan guarantees?

Mr. TALMADGE. The Senator is correct. We are, of course, talking only about grants, direct loans, and loan guarantees to be made through CCC.

Mr. BUMPERS. What are the limitations in the feedstocks to be used in the production of either methanol or alcohol under the Senator's amendment?

Mr. TALMADGE. Will the Senator repeat the question?

Mr. BUMPERS. My question is, I assume there is a limitation since the Senator has already said there is no provision in here for the amount of active alcohol from urban waste, so let me rephrase the question to ask the Senator what feedstocks may be used in the production of alcohol and still qualify for assistance under any one of the three authorizations? Does it have to be an agricultural product? Does it have to be a product such as timber or chips?

Mr. TALMADGE. Biomass is defined in section 2004 of the new title, and I quote: "Biomass, without limiting its meaning, includes grain and stalks of corn, wheat, rice, and sorghum, cottonseed and peanut hulls, fruits and vegetables and their processing byproducts and residues, aquatic plants, specific energy-farm crops, animal wastes, wood and wood products, bark, wood pulp and chips, residues from logging and paper manufacturing, and animal waste products."

Mr. BUMPERS. Let me ask one additional question. Are there any limits provided in this as an incentive for the production of any of these crops for the use of manufacturing alcohol?

Mr. TALMADGE. No.

Mr. BUMPERS. Finally, could the Senator tell me how his amendment differs from any provisions in the Energy Committee bill so far as creating incentives to produce alcohol are concerned? How does it differ from the Energy Committee bill?

Mr. TALMADGE. My amendment is related primarily to the farm. It includes rural energy research and extension. We want to get energy plants in operation, and we want to get technical information directly to the farm level and encourage everyone who can to produce his own energy and to save energy. My amendment, in contrast with the Energy Committee bill, is more oriented toward agriculture and forestry.

Mr. BUMPERS. Would somebody who was interested in developing biomass conversion facility be eligible for assistance under the Senator's amendment?

Mr. TALMADGE. Will the Senator repeat the question, Mr. President?

Mr. BUMPERS. Will somebody who was interested in building what is often called a biomass conversion facility—that is, I assume, when we talk about biomass conversion that takes in a multitude of feedstocks, including agricultural waste. Is the word "biomass" used anywhere in the Senator's amendment?

Mr. TALMADGE. It is.

Mr. BUMPERS. Does that mean then that anybody who wanted to build a biomass conversion facility would be eligible for assistance at least under one of those authorizations?

Mr. TALMADGE. As stated in my amendment, "biomass" means, and I quote: "Agricultural commodities, forest products, and their wastes

and residues that can be used as fuel for the production of industrial hydrocarbons, or alcohol fuels or other energy sources, that will assist in reducing petroleum and natural gas imports."

Mr. BUMPERS. That satisfies me. I thank the Senator.

One other question: Does the Senator have any objection so far as he is personally concerned to a program not as extensive or expensive as this but one which would also provide some incentives for the production of alcohol from urban waste?

Mr. TALMADGE. Certainly not.

Mr. McCLURE. Mr. President, will the Senator yield?

Mr. BUMPERS. I would be happy to.

Mr. McCLURE. Of course, there is such incentive under title I, title II. This one would not apply to urban waste, but it would apply to cellulosic materials that put the definition within this title. But there are provisions in two other titles of the legislation that would cover the urban waste question.

Mr. BUMPERS. If you separated urban waste from cellulose and non-cellulose, that part of your urban waste would qualify under the amendment of the Senator from Georgia, would it not?

Mr. McCLURE. I do not think it would qualify under this title, but it would under title I and title II of the bill.

Mr. BUMPERS. Wait just a moment. Why would it not qualify? For example, I live in Montgomery County and we are forced to separate all paper products in our garbage there, and I assume it is going to be used for the creation of energy in some form, maybe alcohol as long as it is a cellulose product, whether it is a finished product or a raw material. Would that make a difference?

Mr. TALMADGE. I think that qualifies under title I of the existing bill I am amending, Senator.

Mr. BUMPERS. But it is not the Senator's intention to cover, say, paper waste under his amendment; is that correct?

Mr. TALMADGE. No. I am trying to relate it to agricultural products, biomass forest products, and things of that nature.

Mr. BUMPERS. Is the Senator from Idaho saying those products would qualify under title I of the bill?

Mr. McCLURE. The Senator is correct.

Mr. BUMPERS. Would that be classified as a synthetic fuel?

Mr. McCLURE. It is biomass.

Mr. BUMPERS. I thank the Senator.

Mr. McCLURE. Under title I.

Mr. LEAHY. Mr. President, I rise to give support to the amendment. If enacted, this legislation will greatly reduce our dependence on foreign oil and give this Nation the kind of renewable energy resources it so desperately needs.

The chairman and ranking minority member of the Senate Committee on Agriculture, nutrition and forestry, Senators Talmadge and Helms, deserve much credit for the development and expedient movement of this legislation in the Senate. By sampling a wide range of ideas and often conflicting interests, major renewable resource energy package was developed and quickly earned, on its merits, the unanimous support of the Agriculture, Nutrition and Forestry Committee.

Mr. President, for clarification, I would like to briefly discuss section 2034 and section 2035 in the amendment with the distinguished Senator from Georgia.

On September 6 of this year I introduced S. 1718, the Woodlot Management for Energy Act of 1979. It is my understanding that the two major components of S. 1718, a pilot loan program for private woodlot owners and a grant program for the hiring of additional State foresters, are both contained in essence in the amendment as section 2034 and 2035 of the Food and Agriculture Act of 1977, respectively. Is this accurate?

Mr. TALMADGE. The Senator from Vermont is correct. Although the full committee in considering S. 1775, made some changes in sections 2034 and 2035, changes which the Committee on Agriculture, Nutrition and Forestry unanimously supported, these are essentially the same sections as contained in the Woodlot Management for Energy Act of 1979 as introduced by the junior Vermont Senator.

Mr. LEAHY. Mr. President, I would like to clarify some of the changes made in section 2034 and 2035 by the full committee, changes which I fully support.

First, I ask the Senator from Georgia if my interpretation of the purpose of the pilot loan program is accurate? My interpretation is that the primary purpose of the loans are to develop wood for energy. However, recipients of the loans may use their woodlot timber for other purposes as well. Is this an accurate statement?

Mr. TALMADGE. Yes, it is. While the primary purpose of these loans is to develop forests for the production of fuelwood, the loans are also available for private owners of nonindustrial woodlots who desire to make other uses of their forestry resources.

Mr. LEAHY. Mr. President, finally I would like to clarify with the Senator from Georgia that section 2035, which provides grants for the employment of additional State foresters, is essentially the same as section 8 of S. 1718. Both bills, mine and the committee's, give the grants to the States to allow them to better manage their forest resources. It is my understanding that while the primary job of the new State foresters will be to aid in developing wood for energy, other services will be available for other woodlot management purposes as well. Is this correct?

Mr. TALMADGE. This is an accurate assessment. As with the loans provided under section 2034, grants to States to hire additional State foresters under section 2035 are primarily provided to increase the availability of fuelwood. However, State foresters hired by these States will have the latitude to initiate forest techniques for other uses of woodlot resources as well.

Mr. LEAHY. Mr. President, I thank the Senator for discussing these clarifications with me. This amendment is a very sound and very good approach to solving our rural energy problems. The full Committee on Agriculture, Nutrition, and Forestry, and especially the accomplished chairman of that committee, should be complimented for this bill. I would urge all of my Senate colleagues to support its adoption.

Mr. STENNIS. Mr. President, I am pleased to support the amendment offered by the distinguished Senator from Georgia. The adoption of this amendment would be a very important step in our drive for energy independence and I highly commend the Senator from Georgia for his informed and timely interest in this important matter. As the Senator from Georgia has explained, the amendment would require the Secretary of Agriculture to implement, within the Depart-

ment of Agriculture, and agricultural, forestry, and rural energy production, utilization, and conservation program. The goal would be to assist the United States in achieving energy independence in agricultural and forestry production, processing, and marketing, and a 50-percent reduction in the petroleum and natural gas used by rural residents and communities. It would establish the research, extension, demonstration, and grant programs necessary for the effective implementation of the program and require that the Secretary of Agriculture coordinate these programs.

Mr. President, I believe that we must actively pursue and develop all possible alternatives for petroleum products as sources of energy. For example, I have announced my support for the large-scale program directed at the development and production of synthetic fuels. However, I believe that it is essential that all programs and measures that will lend encouragement to research into and development of production of alternate fuels be fully explored. The extent and gravity of the energy crisis confronting this country today demands that we leave no stone unturned in our quest for alternative sources of energy.

I share the view of the Senator from Georgia that biomass, or production of fuels from wood, grain, and other products of field and forest, is one of the avenues which must be explored. The production of alternate fuels from agricultural and forestry products offers a practical and relatively inexpensive way of reducing our dependence on foreign oil. The technology for the efficient production of alternate fuels from wood, grain, and other biomass materials is already substantially developed and is ready for almost immediate application on the farm and in small commercial activities.

Mr. President, the State of Mississippi has an abundance of agricultural and forestry products which would be used and useful in biomass development and production program. Despite our rapid progress in other areas, agriculture remains the backbone of our economy. Therefore, if this amendment becomes law, as I hope it will be, I anticipate that my State will play a significant part in the program which it would provide. We are already very deeply involved in research and experimentation in agriculture and forestry and participation in the biomass program would be a natural and easy step for us to take. This would enable Mississippi to make a further contribution toward solving the energy problem and, at the same time, by providing new and increased use of and markets for products of the field and forest, it would contribute significantly to the economic development as well as industrial expansion of the State and this would result in added employment opportunities and increased income.

Mr. President, this is a very important and significant amendment. I hope that it will be adopted by the Senate and will ultimately become law.

Mr. MUSKIE. Mr. President, the Senate now is considering the Tammidge amendment of S. 932. This amendment incorporates many provisions of S. 1775, the Agricultural, Forestry, and Rural Energy Act of 1979, and addresses an important national need for the development of small scale energy production from renewable resources.

The emphasis on small scale production would be particularly attractive to farmers and rural communities. Increased energy self-sufficiency at the farm level would assure the uninterrupted production

tion of food during any future oil shortage. At the national level, the benefits from this type of energy can be significant in decreasing our dependence on imported oil.

We have much positive evidence on the potential for energy production from renewable resources. In Maine, wood has long been an important energy source in our pulp and paper industry and even in home heating. This amendment will help to insure that our Nation achieves the full potential of its renewable energy resources.

In the amendment before the Senate there are several technical changes from the original Agriculture Committee reported bill which are of budgetary significance. These changes have not altered the substance of the bill but have removed some potential backdoor spending provisions. This action will assist both the Budget and Agriculture Committees in their mutual responsibility to oversee and control Federal spending.

Mr. President, I want to commend Senator Talmadge and the Agriculture Committee for incorporating the Budget Committee recommendations in their amendment and I recommend its adoption.

Mr. TALMADGE. Mr. President, I urge the adoption of the amendment.

The PRESIDING OFFICER. The question is on agreeing to the amendment of the Senator from Georgia, as amended.

The amendment (UP No. 751), as amended, was agreed to.

Mr. TALMADGE. Mr. President, I move to reconsider the vote by which the amendment was agreed to.

Mr. HELMS. I move to lay that motion on the table.

The motion to lay on the table was agreed to.

Mr. McCLURE. Mr. President, I ask unanimous consent that the amendment of the Senator from West Virginia be temporarily laid aside.

The PRESIDING OFFICER. Is there objection? The Chair hears none, and it is so ordered.

UP AMENDMENT NO. 754

(Purpose: To expand the Motor Vehicle Study)

Mr. JAVITS. Mr. President, I send an amendment to the desk and I ask for its immediate consideration.

The PRESIDING OFFICER. The clerk will report.

The legislative clerk read as follows:

The Senator from New York (Mr. Javits) proposes an unprinted amendment numbered 754:

On page 183, line 8, insert the following before the period: "including, requirements that would mandate specified proportions of alcohol in all motor gasoline sold".

Mr. JAVITS. Mr. President, I would greatly appreciate it if the managers of the bill would tell me whether they are ready to consider it now. It is a gasohol amendment. If they are not, I will hold it out until they are ready. The only question is whether or not the Senators are willing to include in the study a section for gasohol, the requirements, and they advise as to whether or not it is desirable or undesirable, and if so in what percentage and in what way they would mandate a specific element in the gasoline to be alcohol. If that is acceptable, that is all right. If not, I do not want to detain the Senators now and other

Senators if they have other amendments. It is the same subject, and I thought it was the right time to propose it.

Mr. JOHNSTON. Mr. President, as I understand it, this amendment simply requires that as part of a study that DOE study the question of the requirement of putting in specified levels of ethanol to mix with gasohol. I think that is an appropriate matter to be studied, and we would, therefore, accept the amendment.

Mr. JAVITS. I thank my colleague.

Mr. McCLURE. Mr. President, I think it is worth noting that the question of how much should be mandated is a serious question.

Mr. JAVITS. Of course.

Mr. McCLURE. It ought to be studied, and from that standpoint I think the Senator from New York has made a constructive addition to the bill, and I am happy to accept it.

Mr. JAVITS. I thank my colleagues very much.

The PRESIDING OFFICER. The question is on agreeing to the amendment of the Senator from New York.

The amendment was agreed to.

Mr. JAVITS. Mr. President, I move to reconsider the vote by which the amendment was agreed to.

Mr. JOHNSTON. I move to lay that motion on the table.

The motion to lay on the table was agreed to.

Mr. JAVITS. I thank the Senator very much.

Mr. WALLOP. Mr. President, I ask unanimous consent that the pending amendment of the Senator from West Virginia be temporarily laid aside for the purpose of considering another amendment.

The PRESIDING OFFICER. Without objection, it is so ordered.

UP AMENDMENT NO. 755

(Purpose: To provide for consultation with States in which projects will be located)

Mr. WALLOP. Mr. President, I send an amendment to the desk and ask that it be stated.

The PRESIDING OFFICER. The amendment will be stated.

The legislative clerk read as follows:

The Senator from Wyoming (Mr. Wallop) for himself, Mr. Dole, and Mr. Simpson proposes an unprinted amendment numbered 755.

On page 83, line 17—

Mr. WALLOP. I ask unanimous consent that further reading of the amendment be dispensed with.

The PRESIDING OFFICER. Without objection, it is so ordered.

The amendment is as follows:

On page 83, line 17, insert "(1)" after "(e)".

On page 83, insert the following between lines 23 and 24:

(2) The Corporation shall consult with the Governors of the States in which proposed projects would be located with regard to the manner in which the project would be developed and regularly licensing and related governmental activities pertaining to such project. The States shall have the opportunity to provide written response to the Corporation on all aspects of project development, licensing and operation.

Mr. WALLOP. Mr. President, I have spoken with the managers of the bill on this amendment. It simply requires that the Energy Security Corporation consult with the Governors of the States in which these projects are to be located about the project, the nature of it, about

their plantsiting laws, and their other laws which will be affected by it; and provide those Governors the opportunity to submit written comments about the proposal.

It does not, in fact, require the Energy Security Corporation to perform any other function than to consult and to have the written comments submitted to them and to consider them. They do not, in fact, have to perform anything thereafter. But I think what we will do by way of this is provide a means of easing these projects along and maintaining a circumstance in which people are not necessarily led to head in an adversarial posture when it comes to the establishment of the project.

It will also provide information for the Energy Security Corporation about the types of laws, about the types of impact that the project which they might be proposing would have within the State. Many of these States will find that these projects are, perhaps, the biggest undertaking ever to happen within the boundaries of that State.

I do this only to try to ease the posture between the States and the Energy Security Corporation and to make the process go more smoothly.

It is an important component to synthetic fuels development because some projects sponsored by the corporation may become the largest undertaking ever attempted in a State. By adopting this amendment, a State will have the opportunity to provide written response to the corporation on all aspects of the project development, licensing, and operation.

The Energy Committee is to be complimented in its effort to make State and local environmental, land use, and siting laws applicable to synthetic fuels projects that are sponsored by the corporation. This amendment would compliment those provisions by insuring that States have the opportunity to participate in multibillion-dollar decisions that will affect its citizens.

States are making major strides in developing plans for the siting of energy developments and for the delivery of needed public facilities and services to communities affected by new energy development. By providing mandatory consultation with Governors, this legislation will insure that State plans and efforts are integrated with plans and projects developed by the Synthetic Fuels Corporation. Consultation with Governors will also insure that State expertise will be drawn into the process of selecting and planning projects and sites and will help to avoid any conflicts between State/local officials and the Synthetic Fuels Corporation.

Mr. President, this amendment has the support of the National Governor's Association and I urge its adoption.

Mr. JOHNSTON. Mr. President, I would ask the Senator, does this requirement of consultation pertain to the Government on projects or does it pertain to the privately owned projects, as well?

Mr. WALLOP. The privately owned projects presumably would be subject to all the laws and criteria of the States themselves.

So it primarily refers to the Government-owned projects. But if there were to be some conclusion on the part of the Security Corporation that the project that they were funding in some manner would not be subject to the laws of the State, it would apply in that instance, as well.

Mr. JOHNSTON. Mr. President, I certainly support what the Senator wants to do here. My only concern is that we have the Corporation consulting about a privately owned project. So I wonder if the Senator will agree, if this comports with his intent, to putting in the following language: After "proposed" and before "projects", put in the phrase "Government owned" to make it clear that this does apply only to Government-owned projects. Because otherwise the Corporation would be consulting for the privately owned projects; and privately owned projects are, of course, under the terms of the law subject to State law anyway.

Mr. WALLOP. Well, to the extent that that is made clear in the report—what I do not want is to have a quasi-joint venture kind of project to be outside of this. And, really, this is not an impossible requirement for them to do. It is simply a means of notification and consideration, rather than anything else.

So, to the extent that a joint venture might be considered by the Security Corporation as a means around it, I do not think it would be in the interest of either party to do that.

Mr. JOHNSTON. How about putting "Government owned or joint venture"?

Mr. WALLOP. I would be happy with that. I think that would solve the problem.

Mr. President, I ask that my amendment be so modified.

The PRESIDING OFFICER. The amendment is so modified.

Mr. JOHNSTON. Mr. President, with that modification, I will agree to the amendment.

Mr. DOMENICI. Might I ask, how are you modifying it?

The PRESIDING OFFICER. Will the Senator please send the modification to the desk?

Mr. JOHNSTON. Mr. President, I send the proposed modification to the desk.

Mr. WALLOP. The modification reads:

in which proposed Government-owned or joint venture projects.

Mr. DOMENICI. Could I ask my friend from Wyoming, are we now saying that the process you are talking about applies to some, but not to others?

Mr. WALLOP. Well, it is the understanding of the Senator from Wyoming that all private ventures, even though they may have legal guarantees for products, purchase arrangements, or other kinds of arrangements with the Government, that are not joint ventures, are not Government-owned are subject to the laws of the States in which they are to be located without regard to this process.

Mr. JOHNSTON. It is simply a consultation process.

Mr. DOMENICI. I know it is a consultation process.

If the Senator is satisfied with that as you were talking about it ought to apply to them all.

Mr. WALLOP. I agree with the Senator. But I do not really think that it is incumbent upon the Energy Security Corporation to consult with the State of Wyoming, should Carter Mining want to go into a gasification project within the State, when they are going to be subject to the laws of the State anyway.

Mr. DOMENICI. All right. That is fine. We have no objection.

The PRESIDING OFFICER. The amendment is so modified.

the amendment, as modified, is as follows:

page 83, line 17, insert "(1)" after "(e)".

page 83, insert the following between lines 23 and 24:

1) The Corporation shall consult with the governors of the States in which said Government owned or joint venture projects would be located with a view to the manner in which the project would be developed and regulatory and related governmental activities pertaining to such project. The Corporation shall have the opportunity to provide written response to the Corporation's aspects of project development, licensing and operation."

1. WALLOP. Mr. President, I move my amendment be agreed to.

1. PRESIDING OFFICER. The question is on agreeing to the amendment, as modified by the Senator from Wyoming.

1. amendment (UP No. 755), as modified; was agreed to.

1. WALLOP. I move to reconsider the vote by which the amendment was agreed to.

1. JOHNSTON. I move to lay that motion on the table.

1. motion to lay on the table was agreed to.

1. PRESIDING OFFICER. The question now recurs on agreeing to the amendment of the Senator from West Virginia.

1. ROBERT C. BYRD. Mr. President, I ask unanimous consent that amendment be temporarily laid aside, and that the Senator from Wyoming (Mr. Simpson) be recognized to call up an amendment.

1. SIMPSON. Mr. President, I thank the majority leader for his courtesy.

UP AMENDMENT NO. 756

(Purpose: To provide that the Corporation pay certain taxes)

1. SIMPSON. Mr. President, I have an amendment at the desk, which I ask be read in full.

1. PRESIDING OFFICER. The amendment will be stated.

1. legislative clerk read as follows:

1. Senator from Wyoming (Mr. Simpson), for himself and Mr. Wallop—

1. SIMPSON. Mr. President, I ask unanimous consent that further reading of the amendment be dispensed with.

1. PRESIDING OFFICER. Without objection, it is so ordered.

1. amendment is as follows:

page 115, line 23, strike "and".

page 116, line 5, strike the period and substitute "; and".

page 116, insert the following between lines 5 and 6:

1. the Corporation shall be subject to any nondiscriminatory tax levied imposed by any State, country, municipality, or local taxing authority on the assets of a corporation construction project pursuant to subtitle E, in-
cluding only,

1. the extraction or severance of minerals owned or leased by the corporation

1. on the purchase or lease of tangible personal property.

1. SIMPSON. Mr. President, earlier in the consideration of this legislation, I submitted an amendment which was later withdrawn by request, to draft language which would be more appropriate to accomplish the result desired.

1. JOHNSTON. Mr. President, if I may interrupt the distinguished Senator, let me say this: This amendment as now drafted does comport with our discussion, and we accept it, with congratulations to the Senator from Wyoming.

1. SIMPSON. Mr. President, I appreciate that, and resubmit my remarks.

Mr. President, I now understand that this amendment relating to State and local taxation of Energy Security Corporation mining and project construction activities is in a form that is acceptable to both sides of the aisle.

The importance is the need to waive tax immunity for those State and local revenue measures, such as mineral severance, sales and use taxes, which reach those commercial transactions associated with the purchase or lease of heavy equipment, and industrial components specifically connected with synthetic fuel projects initiated or underwritten by the Synthetic Fuels Corporation.

These revenues are then immediately available to State and local governments to defray the cost of public services and facilities required by the impact of industrial development. That, Mr. President, is the intent of the second subsection of this amendment.

The nature of major construction and mining projects are such that there is a period of critical lead time before revenues come to the local governments from the taxation of mineral extraction or the addition of a plant to property tax rolls.

I appreciate the courtesy of the able floor manager of this bill and their capable staff for accepting this amendment.

I would simply conclude by saying it is a very important amendment, to provide for certain tax immunity for these particular corporations, and that they be subject to State and local taxes, including State sales, use, and mineral severance taxes. I move the adoption of the amendment.

Mr. WALLOP. Mr. President, will the Senator yield?

Mr. SIMPSON. I shall indeed.

Mr. WALLOP. Mr. President, the amendment that I am cosponsoring with my distinguished colleague from Wyoming will correct an oversight in the current version of the synthetic fuels title of S. 932. The amendment will require that any Corporation construction project will be subject to mineral severance, sales, or use taxes.

It has been repeatedly stated that this synthetic fuels initiative is needed to provide economic incentives. In other words, it is designed to complement the private sector and not compete with it. Yet if Corporation projects are exempt from these excise taxes, they would not only enjoy a significant competitive advantage over non-Government projects but it would hamstring the ability of State and local governments to provide the services necessary to cope with the problems of impact.

This amendment simply states that Corporation construction projects shall be subject to excise taxes. In essence, they will be treated like a non-Government entity that is trying to develop synfuels.

Mr. McCLURE. Mr. President, we have examined the amendment offered by the distinguished junior Senator from Wyoming with his colleague, and, as it has been amended, it seems to me to carry out the intention that he has expressed, and is acceptable to us.

The PRESIDING OFFICER. The question is on agreeing to the amendment of the Senator from Wyoming (Mr. Simpson).

The amendment (UP No. 756) was agreed to.

Mr. McCLURE. Mr. President, has the amendment of the Senator from Wyoming been agreed to?

The PRESIDING OFFICER. The Senator is correct.

Mr. McClure. I move to reconsider the vote by which the amendment was agreed to.

Mr. Johnston. I move to lay that motion on the table.

The motion to lay on the table was agreed to.

The **PRESIDING OFFICER.** The question now recurs on agreeing to the amendment of the Senator from West Virginia.

Mr. Robert C. Byrd. Mr. President, I ask unanimous consent that my amendment be temporarily set aside.

The **PRESIDING OFFICER.** Without objection, it is so ordered.

UP AMENDMENT NO. 757

Mr. Dole. Mr. President, I send an unprinted amendment to the desk and ask for its immediate consideration.

The **PRESIDING OFFICER.** The clerk will state the amendment of the Senator from Kansas.

The legislative clerk read as follows:

The Senator from Kansas (Mr. Dole) proposes an unprinted amendment numbered 757:

On page 75 line 19 through page 78 line 7:

Strike subsection 116(a) following the first sentence, and substitute the following:

"For purposes hereof, administrative expenses shall be that portion of the Corporation's account for general and administrative expenses, including salaries of personnel and consultants, expenses for computer usage, space needs of the Corporation, and similar expenses."

Mr. Dole. Mr. President, this is not a highly significant amendment, but I hope the chairman of the Appropriations Committee and the authorizing committee chairman will at least focus their attention on this proposal.

In the committee version, section 116, subsection (A), provides an automatic cost-of-living increase in authorized cash outlays for administrative expense of the Energy Security Corporation. In short, the authorization of administrative expenses is indexed to inflation. My amendment would strike the indexing feature, and instead Congress can increase the authorization each year if it deems that necessary.

Mr. President, every Government agency, authority, department or what-have-you would like to have its funding indexed.

This is a bad example to set, particularly when the Government speaks constantly about the need for belt-tightening, austerity, and wage restraint. It will not be a great burden on Congress to review this funding authorization when necessary, but it would be an insult to the taxpayer to provide an automatic increase. We do not adjust income tax liabilities for inflation, although we ought to—the windfall in tax revenues from inflation encourages the kind of automatic, unthinking spending growth we have here. It may be a small amount of money, but it is symbolically important. We could not possibly set a worse precedent for future expense authorizations, and we ought to reject, here and now, the notion of providing automatic increases in funding of Government programs.

I urge the adoption of my amendment.

I reserve the remainder of my time.

Mr. Johnston. Mr. President, the Senator from Kansas addressed the same issue that the Senator from Oklahoma addressed yesterday from a little bit different standpoint. That is the fact that we do not want this corporation to be continually growing and also increasing

the number of employees. It seems to me that the approach of the Senator from Oklahoma, which has been incorporated in this bill, is a better approach. What he does is to put a strict limit, with no indexing, of 300 employees in the professional category on the personnel limit of the corporation. That, Mr. President, I think, is the proper approach.

What this proposed amendment would do is to make this corporation subject to annual appropriations and, in effect, an annual veto by the Congress. We want to give this corporation an independence, but not the ability to grow in employees; not the ability to grow in scope, and a limited authorization—\$35 million in real dollars each year, and that amount cannot grow beyond a \$35 million real dollar figure.

I would hope with the understanding now that the amendment of the Senator from Oklahoma having been adopted and the strict limit of 300 employees put on, that the Senator from Kansas will consider this sufficient protection and might consider withdrawing his amendment.

Mr. DOLE. The Senator from Kansas will not withdraw the amendment but he is willing to have a voice vote. I know the Senator from Louisiana has worked long and hard on this legislation. I will not insist on a rollcall, but it seems to me it is a concept that at least ought to be noted as we gear up this \$88 billion monster.

Mr. JOHNSTON. Mr. President, the bill has also been modified to make clear that it is not an \$88 billion corporation. Phase 2, which is anything above \$20 billion, would be subject to authorization by both Houses of Congress, in addition to the appropriation process.

I am willing to accept a voice vote, Mr. President, and I am willing to put the question at this point.

Mr. METZENBAUM. Will the Senator from Kansas or the Senator from Louisiana advise me? I have no objection to the new language but what is all the language being deleted on page 76, line 8, through page 78, line 7? Is that applicable only to this very matter?

Mr. DOLE. Right.

Mr. METZENBAUM. And it covers nothing but the question of administrative expenses?

Mr. DOLE. That is correct. This amendment would require the corporation to come to the Congress. It seems to me maybe they should be totally independent, but it is not a precedent I want to join in. If I am defeated, I am willing to accept that and I will not delay the Senate.

Mr. METZENBAUM. I thank the Senator.

The PRESIDING OFFICER. The question is on agreeing to the amendment.

The amendment (No. UP 757) was rejected.

Mr. JOHNSTON. Mr. President, I move to reconsider the vote by which the amendment was rejected.

Mr. DOMENICI. Mr. President, I move to lay that motion on the table.

The motion to lay on the table was agreed to.

The PRESIDING OFFICER. The question recurs on the amendment of the Senator from West Virginia.

Mr. MELCHER. Mr. President, I ask unanimous consent that the amendment of the Senator from West Virginia be temporarily laid aside.

The **PRESIDING OFFICER**. Without objection, it is so ordered.

UP AMENDMENT NO. 758

Mr. MELCHER. Mr. President, I send an amendment to the desk and ask for its immediate consideration.

The **PRESIDING OFFICER**. The amendment will be stated.

The legislative clerk read as follows:

The Senator from Montana (Mr. Melcher) for himself and Mr. Boschwitz, proposes an unprinted amendment numbered 758.

Mr. MELCHER. Mr. President, I ask unanimous consent that further reading of the amendment be dispensed with.

The **PRESIDING OFFICER**. Without objection, it is so ordered.

The amendment is as follows:

On page 274, after line 21, add a new subtitle as follows:

Subtitle J—Amendments to the Weatherization Grant Program

(a) **LIMITATIONS ON EXPENDITURES**.—Section 415 of the Energy Conservation in Existing Buildings Act of 1976 is amended—

(1) by striking out "except that not more than 5 percent of any grant made pursuant to section 413(a)" in subsection (a) and all that follows through the period at the end of such subsection and inserting in lieu thereof the following: "except not to exceed 10 percent of a grant made under this part and not to exceed 5 percent of a grant made to a State pursuant to section 413(a), may be used for administration in carrying out the duties under this part."

(2) by deleting in subsection (c) (1) the words "paragraph (2)" and inserting in lieu thereof "paragraphs (2) or (3)," and adding the following new paragraph (3) to the end of subsection (c):

"(3) the Administrator may use financial assistance provided under this part or increase the limitation of \$800 described in paragraph (1) to secure installation of weatherization materials where the Administrator, with the concurrence of the Secretary of Labor, determines that there is an insufficient number of volunteers and training participants and public service employment workers, pursuant to the Comprehensive Employment and Training Act of 1973, available to work on weatherization projects under the supervision of qualified supervisors and foremen."

Mr. MELCHER. Mr. President, the draft legislative language, which is attached, provides two changes to the weatherization assistance program for low-income persons ("WAP"):

First. The 10-percent restriction on administrative expenditures is revised to permit States to pass on up to the full 10 percent, but not less than 5 percent, of a grant to local program operators for administrative costs. As presently enacted, local operators only receive 5 percent of a grant for administration even though a State would be willing to provide more by passing on a portion of the State's administrative funds.

Mr. President, we thought the original statute would permit this, but find out that is not the case. This is to correct that provision.

Second. Language is provided to clarify DOE's authority to pay for the installation of weatherization materials where program operators are unable to obtain labor from CETA or other sources. Specifically DOE is authorized to raise the present limitation of \$800 per dwelling unit where it is demonstrated labor is unavailable to weatherize dwelling units. This language does not alter the current requirement that, to the maximum extent practicable, labor is to be used from the CETA program. However, where labor is unavailable from CETA or other sources, DOE would be able to take immediate action,

such as authorizing program operators to: hire CETA eligible laborers to supplement CETA wages to attract employees; hire experienced laborers for jobs requiring a special skill; and use contractors to install materials on a short-term basis where there is temporary unavailability of labor.

Mr. President, I move adoption of the amendment.

Mr. JEPSEN. Mr. President, I ask unanimous consent that I be listed as a cosponsor on the amendment to authorize installation of weatherization material by non-CETA employees in communities which have a shortage or absence of CETA workers.

The PRESIDING OFFICER. Without objection, it is so ordered.

Mr. JEPSEN. Mr. President, the Senator's amendment is worthy of our support because of the severe shortage of CETA employees to install weatherization material in the homes of eligible citizens, primarily elderly citizens.

The main objective of the amendment is to allow non-CETA employees in communities which have a shortage or absence of CETA workers to install weatherization materials in eligible homes.

Mr. President, I know that other Senators have expressed concern over this particular issue, such as Senator Nelson. It is most distressing to me to hear from my State of Iowa that thousands of homes are not being weatherized because of the lack of workers. What is most distressing is that the shortage of workers is due to an administrative policy put into force by the Departments of Energy and Labor.

I do not want to take the Senate's time pointing the finger of blame at an administrative agency. I have been informed that legislation is forthcoming to address the problem with the Departments of Energy and Labor.

Instead, Mr. President, I simply urge my colleague here to support this amendment. Materials are literally lying on the ground in many States. Money which has already been appropriated since 1975 is still unspent as a result of the shortage of CETA workers. Therefore, in order to weatherize the homes of eligible citizens, elderly citizens, I support this amendment.

Mr. JOHNSTON. Mr. President, the existing weatherization program has not worked because, frankly, there has been a dispute between the Department of Labor and OMB as to how the Davis-Bacon Act will be applied and how it will operate.

What this amendment does is straighten out that dispute. It has been agreed to by the Department of Labor and OMB, and it will make a workable program out of the existing weatherization program.

In the committee we considered this matter but were not able at the point to offer the amendment to straighten it out because there had been no agreement between the Department of Labor and OMB, and the other parties involved. This does solve that problem which we discussed in committee. It is an appropriate amendment and I think it will make the weatherization program work. We accept the amendment.

Mr. DOMENICI. Mr. President, we have no objection to the amendment. This is one of the suggested ways to make the weatherization program work better. The suggestion was not ready in time to get to the committee when we were discussing it. It will improve it.

program as it relates to CETA. It gives more discretion to the States that have indicated they need more discretion to make the program work. We commend the Senator for offering it, and have no objection to its adoption.

Mr. MELCHER. I thank the Senators.

The PRESIDING OFFICER. The question is on agreeing to the amendment.

The amendment was agreed to.

Mr. MELCHER. Mr. President, I move to reconsider the vote by which the amendment was agreed to.

Mr. DOMENICI. Mr. President, I move to lay that motion on the table.

The motion to lay on the table was agreed to.

The PRESIDING OFFICER. The question now recurs on the amendment of the Senator from West Virginia.

Mr. DURKIN. Mr. President, I suggest the absence of a quorum.

The PRESIDING OFFICER. The clerk will call the roll.

The assistant legislative clerk proceeded to call the roll.

Mr. HATCH. Mr. President, I ask unanimous consent that the order for the quorum call be rescinded.

The PRESIDING OFFICER. (Mr. Tsongas). Without objection, it is so ordered.

Mr. HATCH. Mr. President, I call up my printed amendment No. 578 and ask for its immediate consideration.

The PRESIDING OFFICER. The Chair states that it will take unanimous consent to lay aside the pending amendment, which is the amendment of the Senator from West Virginia.

Mr. HATCH. It is my understanding that the Senator from West Virginia—I ask unanimous consent that the Senator from West Virginia temporarily lay his amendment aside.

Mr. METZENBAUM. Reserving the right to object, and I do not intend to object, will the Senator from Utah be good enough to tell me what his amendment is?

Mr. HATCH. Yes. My amendment is to authorize the Secretary of the Interior to issue prospecting permits for coal, tar sands, oil shale and phosphate, which cover lands subject to mining claims. Basically, I have a short, two-page statement on it that will describe it further. If we could get the pending amendment temporarily laid aside, I shall discuss it further.

The PRESIDING OFFICER. Is there objection?

Mr. JOHNSTON. Mr. President, reserving the right to object, I am advised that the majority leader wanted to protect his amendment. Am I correct that the majority leader wanted an objection to be made?

Mr. HATCH. Mr. President, I am not asking to have it set aside except by the majority leader. If he does not want to have it set aside, I shall be happy to suggest the absence of a quorum.

Mr. DOMENICI. Mr. President, may I say that we have had a sort of gentleman's understanding here that we are setting it aside for the purpose of considering amendments. Why would we not do it now?

Mr. JOHNSTON. It is perfectly all right with me. I am advised that it is OK.

I have no objection, Mr. President.

The PRESIDING OFFICER. Without objection, it is so ordered.

AMENDMENT NO. 578

(Purpose: To authorize the Secretary of the Interior to issue prospecting permits for coal, tar sands, oil shale, and phosphate which cover lands subject to mining claims).

Mr. HATCH. Mr. President, I call up my amendment No. 578 and ask for its immediate consideration.

The PRESIDING OFFICER. The amendment will be stated.

The assistant legislative clerk read as follows:

The Senator from Utah (Mr. Hatch) proposes an amendment numbered 578.

Mr. HATCH. Mr. President, I ask unanimous consent that further reading of the amendment be dispensed with.

The PRESIDING OFFICER. Without objection, it is so ordered.

The amendment is as follows:

On page 140, between lines 14 and 15 insert the following new section:

CONFLICTS BETWEEN LEASABLE AND LOCATABLE MINERALS

SEC. 180. (a) Notwithstanding any other law or rule of law, the provisions of the Act entitled "An Act to amend the mineral leasing laws and the mining laws to provide for multiple mineral development of the same tracts of the public lands, and for other purposes," approved August 13, 1954 (68 Stat. 708), shall be deemed to include within its purview authority for the Secretary of the Interior to have issued prospecting permits for coal, tar sands, oil shale, and phosphate which cover lands subject to a valid mining claim, if such permits could have otherwise been issued but for such claim.

(b) Delete from section 9(b) of the Mineral Leasing Act of 1920, (30 U.S.C. 211(b)), the words "unclaimed, undeveloped".

Mr. HATCH. Mr. President, I do not want to take up a lot of time with this amendment. It does not involve a controversial consideration. I hope that, once I have made clear what it is supposed to do, the Energy and Natural Resources Committee will accept it as an extension of this measure we are debating today.

The Mineral Leasing Act of 1920 originally provided for leasing of public lands for the exploration and development of energy minerals so long as the lands in question were "unclaimed and undeveloped." When the demand for uranium oil, and gas rapidly increased after World War II, the conflicts between mineral leases and mining claimants became significant because many areas that were potentially valuable for uranium were also valuable for oil and gas leasing. In 1954, Congress passed the Multiple Mineral Development Act as a permanent solution to this problem. The purpose of that legislation was to eliminate conflicts between those claiming under the Mineral Leasing Act and those claiming minerals under the Mining Law of 1972.

In spite of this clear statement of congressional intent, in 1977, the solicitor of the Interior Department issued an opinion that explicitly reversed that intent for coal and phosphate preference—right lease tracts.

My amendment, Mr. President, simply reaffirms the intent of the 1954 law and extends the concept to other leasable minerals.

I assure my colleagues that the mining industry is well accustomed to sharing surface occupancy and exploration rights amongst themselves simultaneously on the same lands for different mineral commodities. I urge my colleagues to adopt this amendment in the interest of removing one of many potential impediments to the develop-

ment of the resources that this entire synfuels program is going to require to operate.

I reserve the remainder of my time, Mr. President.

Mr. JOHNSTON. Mr. President, the Senator from Utah may have a very good bill here, and I say "bill" advisedly because it is a matter which lies within the jurisdiction of our committee but which, unfortunately, has had no hearings. It raises a number of questions, one of which we cannot answer from the face of the amendment, that it may have the effect of validating mining permits that have already been ruled invalid by the Solicitor but which, in turn, would take away existing rights from other permit holders. So it might have that effect, Mr. President, and it is the kind of amendment that ought to be heard.

I certainly would not want to prejudge it and I am sure there are probably strong cases to be made in individual instances, where we could find out whether there really is a question.

I urge the Senator to submit this as a bill to us and we shall try to give it expeditious hearing in the Committee on Energy and Natural Resources and give him an answer that way. But I would not want to accept this amendment on this bill, Mr. President, with those questions outstanding.

Mr. DOMENICI. Mr. President, I say to my friend from Utah that he raises a significant issue that cries out for an answer and we ought to answer it. We ought to resolve the dispute that he described here.

As he indicates, there are many, perhaps an overwhelming number of people who know who indicate that there is no reason for the differing treatment here. You cannot be mining uranium and coal on the same Federal land. Many industry people would say if you do no harm to anyone, that is a kind of ridiculous, long-term distinction with no rationale.

I, too, hope that not only would the majority indicate that this deserves a hearing but that they would commit to the Senator that we have early hearings to get this matter resolved.

That does not mean committed to hearings next week, but as soon as possible to ask the subcommittee to have hearings, listen to the experts the Senator has obviously heard, resolve this issue and let it come to the floor as soon as possible.

I, for one member of the committee, would agree that is what we ought to do. I hope the Senator from Louisiana would agree to ask the chairman to have early hearings on this matter.

Mr. JOHNSTON. The Senator is correct.

I would concur in that request.

Mr. HATCH. Mr. President, I appreciate the comments of my colleagues.

As they know, it is pretty tough to get people to invest with conflicts of this kind unresolved, and this is a major one that we should resolve.

With the understanding that if we submit this as a bill, that members of the committee will hold hearings at the earliest convenience of the committee, I certainly accept my colleague's assertions in that regard, and, Mr. President, I withdraw the amendment.

The PRESIDING OFFICER. The amendment is withdrawn.

Mr. HATCH. I thank my colleagues for their kindness.

Mr. DOMENICI. I thank the Senator from Utah for his excellent issue and for withdrawing the amendment at this time.

Mr. JOHNSTON. I thank the Senator.

The PRESIDING OFFICER. The question recurs on the amendment offered by the Senator from West Virginia.

Mr. Dole addressed the Chair.

The PRESIDING OFFICER. The Senator from Kansas.

Mr. DOLE. Mr. President, I am not certain that the distinguished Senator from West Virginia is prepared to move ahead, or not. I ask unanimous consent the amendment be temporarily set aside.

The PRESIDING OFFICER. Is there objection to the request?

Without objection, it is so ordered.

UP AMENDMENT NO. 579

(Purpose: To require the President to purchase oil for the Strategic Petroleum Reserve).

Mr. DOLE. Mr. President, I send an unprinted amendment to the desk and ask for its immediate consideration.

The PRESIDING OFFICER. The amendment will be stated.

The assistant legislative clerk read as follows:

The Senator from Kansas (Mr. Dole) proposes an unprinted amendment numbered 759.

Mr. DOLE. Mr. President, I ask unanimous consent that further reading of the amendment be dispensed with.

The PRESIDING OFFICER. Without objection, it is so ordered.

The amendment is as follows:

On page 147, following line 12, insert the following new sections:

SEC. . . (a) Notwithstanding any other provision of law the President shall immediately resume the purchase of crude oil, by contract, for the Strategic Petroleum Reserve established in the Energy Policy and Conservation Act, at a minimum average rate of 100,000 barrels per day per year.

(b) Any import quotas imposed under section 107 of the Energy Policy and Conservation Act shall not apply to the Strategic Petroleum Reserve buildup.

(c) There are authorized to be appropriated to carry out the purposes of this section such sums as may be necessary.

(d) The Department of Energy is authorized to contract for consideration of facilities needed to store the additional reserves.

SEC. . Paragraphs (1) and (4) of section 160(b) of the Energy Policy and Conservation Act are repealed.

Mr. DOLE. Mr. President, I ask unanimous consent that the Senator from New Jersey (Mr. Bradley) be added as a cosponsor of the amendment.

The PRESIDING OFFICER. Without objection, it is so ordered.

Mr. DOLE. Mr. President, last week when the Senate had before it S. 1871, I had hoped to offer an amendment dealing with the strategic petroleum reserve. I did not offer it at that time because the Senate was working under strict time constraints and I did not want to jeopardize quick passage of that legislation dealing with the international energy agreement.

During debate on S. 1871, I engaged in a colloquy with the distinguished Senator from Louisiana (Mr. Johnston), the result of which was that he supported my contention that we as a nation need to restore priority status to the SPR program and that we should address this particular problem on the next appropriate vehicle. The Senator from Kansas, as well as Mr. Johnston, thought that the DOE authorization bill would be the natural vehicle. Purchases of crude for the SPR affect the world market and the prices paid by consumers.

These are certainly legitimate concerns and it is my intention to address these head on.

My original intention was to offer this amendment, as I stated earlier, to the DOE authorization bill. However, after reviewing the pending legislation it became apparent that S. 932 was a much better vehicle. S. 932 itself amends and extends the Defense Production Act of 1950, which assigns priority ratings to important defense procurement. EPCA implements the Defense Production Act of 1950 by establishing an energy priority system which includes the SPR.

In addition, the current bizarre events in Iran have highlighted the urgency of the SPR question, at least for this Senator. The Ayatollah Khomeini is now officially supporting the takeover of the U.S. Embassy in Tehran, and is directly attempting to use the threat of an oil embargo to dictate U.S. policy with regard to the Shah.

The ayatollah's embargo threats must be taken seriously by the administration because we do not have a viable strategic oil reserve to enable us to withstand a temporary interruption in the supply of OPEC oil. Thus, when OPEC talks Washington listens. Even though we import only between 700,000 and 800,000 barrels of oil from Iran each day, we would be seriously damaged by an Iranian oil embargo since even such a minor shortage will have serious consequences, and would inevitably bring back the long gaslines of last spring and summer. Moreover, the embargo by Iran could be joined by other OPEC states.

Our SPR was abruptly terminated by President Carter last November in deference to the wishes of OPEC's oil sheiks. Although our SPR was supposed to hold 1 billion barrels—good for 3 months—by the early 1980's, according to the original Gerald Ford plan, President Carter has halted the SPR at 92 million barrels—barely enough to keep us going for 12 days.

Without a strong SPR, we will be negotiating with OPEC from a position of weakness and dependence. Since oil is the lifeblood of our economy, OPEC has a perpetual sword of Damocles hanging over our heads, by virtue of their control of our crude oil faucet.

No matter how much the Carter administration tries to conceal the true reason for their unilateral termination of our SPR program, by stating specious argument after specious argument about continued purchases "adversely driving up the price of world oil," and by "cost," they cannot successfully mask the fact that they have put us in a dangerous state of dependence and vulnerability to another oil embargo, as the current events in Iran have shown.

LOOPHOLE IN EPCA

Mr. Carter has used a glaring loophole in the Energy Policy and Conservation Act (EPCA), section 160(b), to justify his decision to indefinitely suspend building up the SPR. Under section 160(b)(4) of EPCA, the Secretary of Energy is granted a loophole to arbitrarily stop building the reserve, if he finds that such a buildup would have "an adverse impact on supply levels and market forces," and he is required to build the SPR only "to the extent practicable."

These phrases are so vague that virtually any external market conditions can be characterized by the President and his energy bureaucracy to "have an adverse impact on supply levels and market prices." And virtually any excuse can be seized upon to declare that it is not practicable to build up the SPR.

DOLE AMENDMENT

Mr. President, this section 160(b)(4) has got to go. My amendment would repeal this loophole section and would require the President to immediately resume purchasing crude oil for the SPR at an average minimum rate of 100,000 barrels per day, per year.

In addition, my amendment would repeal section 160(b)(1) which now gives the President the excuse to stay out of the spot market to buy oil for the SPR. Third, the amendment would require that any purchase of foreign crude oil for the SPR would not be included in any quotas imposed by the President under section 107 of EPCA.

CARTER "MARKET PRICE" EXCUSES NOT VALID

President Carter has argued that to resume purchasing oil for the SPR would cause an "adverse impact on world oil prices." However, the slightest knowledge of economics and mathematics shows the absurdity of this argument.

There are today about 50 million barrels of oil sold in the world market each day. If we buy only 100,000 barrels per day for the SPR, this would represent only 0.2 percent of the world oil sales—hardly enough to have a serious impact on world prices.

The President could transfer oil from our naval oil reserves at Elk Hills and Teapot Dome to the SPR, instead of selling it to private oil companies, as he has been doing since 1977, thus depleting this important reserve. Obviously, transferring oil from Elk Hills to the SPR would not cause a serious adverse impact on the world oil prices. This oil is "sweet crude," and is of the highest quality oil. One can only wonder whether it was OPEC pressure here too which convinced Mr. Carter to deplete this Elk Hills reserve.

Even if for some reason the President chooses not to transfer oil from Elk Hills to the SPR, we could still buy the oil for the SPR from the spot market or contract market. There are always cargo ships full of "distress oil cargo" which have missed their delivery so such oil is available for sale by brokers on the spot. If we are willing to pay the price for 100,00 barrels per day, we can and will get the oil for the SPR.

However, if we do not buy oil on the spot market, other countries will anyway, so we will not be driving up world oil prices.

Furthermore, Mr. President, those who say that the spot market price of \$40 a barrel is too much to pay for SPR oil are telling us that our national security is not worth the price.

I disagree with these voices. Some would have us strip down our energy and military defenses, while lavishly spending billions of dollars on frivolous new Federal bureaucracies.

The money for buying 248 million barrels of SPR oil has been already appropriated and the facilities have been built. What a shame it is that facilities and money sit idle, waiting to be used, when we need security so badly. Resuming purchase of oil for the SPR would neither involve huge budget drains nor would it develop the world market price of oil.

Despite these economic facts, the President insists that the reason he halted the program is that buying oil for the reserve would drive world market prices up, and would therefore have an adverse impact

on market forces. The administration has also employed budgetary arguments to support the SPR termination decision. When our national security is at stake, these arguments are at best specious. Our Nation can no longer afford policies like these. Today the strategic petroleum reserve holds only 92 million barrels—barely enough to last 12 days. One need not have a very active imagination to envision what would result if our energy faucet were turned off—total economic upheaval and the abandonment of our society as we know it today.

Mr. President, I am not in the habit of using scare tactics to secure the needed votes to pass a proposal. The aforementioned is a real risk; my scenarios are not mere tactics but very real possibilities. By not building a viable SPR we are holding ourselves ransom to OPEC's whims. No matter what we do with synfuels, biomass, solar, or any other alternative energy source, we will be dependent on foreign sources to a great extent over the next decade and possibly longer. Should OPEC shut off our oil faucet, we will be left only with the alternative of accepting economic disaster or using military force to seize the Arab oil fields. With a viable SPR we could withstand a temporary embargo during which we could negotiate with the Arabs from a position of strength and credibility.

When President Carter made the decision to unilaterally terminate our reserve—the very minute he made that decision—he placed the United States behind the energy eight ball. The opponents of my proposal are quite right; to begin now to make up for lost time we would be forced to purchase so much oil that the world market may very well be upset. I recognize this, just as all Senators do; but, unlike some, I will not simply lay down and play opossum; nor will I join the silent minority who call for appeasement to OPEC, using any excuse they can find to mask the fact of their appeasement.

The United States should never have totally stopped buying SPR oil, but we did. What is needed now is to embark on a course of action that will focus the President's attention as to the importance of the SPR and secondly to direct the President to purchase oil, even if on a very small scale, for our reserve. Had we not stopped the program our reserve today would have had upward of 300 million barrels in it, as President Ford's original timetable proposed.

Finally, Mr. President, I point out that the very credibility and viability of the synthetic fuels program which S. 932 proposes will be placed in serious doubt if we fail to build up our reserves. The SPR is an integral part of any energy proposal. Since increasing our domestic synfuels serves the same purpose as building up our SPR—that is, it reduces our dependence on OPEC—is it illogical to assume that OPEC will eventually complain as bitterly over our synfuels program as it does over our SPR? Will we then find another excuse to suspend development of our synfuels program? What will be the final result?

Once a policy of acquiescence is initiated and our credibility is in question, the road to recovery is a difficult one to travel. There is no limit as to where the process of appeasement will lead us. Tomorrow, OPEC may express displeasure at our 6th Fleet floating around in the Mediterranean Sea. Will we then acquiesce and withdraw the fleet in order to please the OPEC countries?

If we cannot stand up to OPEC on the relatively modest, when considered in context with all aspects of the energy crisis, issue if

the SPR now, how can we hope to stand up to them in a military emergency.

If the Soviet Union starts to buy OPEC oil soon, as a CIA report says it will, we can expect to see an "OPEC-Soviet axis" pressing for all sorts of demands on the United States to yield on Middle East policy, or else suffer the havoc a slowdown in production will cause.

Already we see candidates for the highest office in the land recommending that we reduce our commitment to Israel in order to please OPEC. If we fail to build up our SPR, we can only expect to hear more voices of appeasement in the future, recommending we do anything to please the Arab oil men.

It seems to me that this is a matter that should be addressed, and I hope the amendment will be accepted by the managers of the bill.

Mr. President, I yield to the distinguished Senator from New Jersey.

The PRESIDING OFFICER. The Senate will be in order.

Mr. BRADLEY. Mr. President, I support the amendment by the Senator from Kansas. I think it is a particularly timely amendment, one long overdue.

The fact is that this country is perilously dependent upon insecure sources of oil; 25 percent of all the oil we consume comes from the Persian Gulf area; 75 percent of Japan's oil comes from that region. Close to 40 percent of Europe's oil comes from that region.

We have discontinued filling the strategic petroleum reserve and therefore have nothing to cushion us in the event of a supply cutoff.

Mr. President, the Government anticipated by 1985 to have 1 billion barrels of oil in storage. As of tonight, we have 94 million barrel of oil in storage, which is the equivalent of about 13 days' supply of the oil we import every day in order to make our economy run in this country.

Mr. President, it is important beyond any emphasis that a Senate could place on this measure that we move to fill that strategic petroleum reserve. This bill addresses long-term energy problems, with the passage of the synfuels bill, 10 or 15 years down the road, before we get anything. Solar energy is a shorter distance away than that. Conservation is a shorter distance away than that. Yet, we have nothing to cushion us in the event of a supply cutoff in the near term.

The argument that has been offered against the buildup of a strategic petroleum reserve is that the economic costs would be too great that the prices would escalate, because we would be taking oil and putting it away for the eventuality of a cutoff.

Mr. President, recent studies just completed by Stanford University convey to us that if we had a cutoff about the size of our dependence on Persian Gulf oil, 3.3 million barrels a day, and if that cutoff lasted for about 12 months, the economic costs of that cutoff would be \$110 billion to the economy of this country.

Mr. President, this is an essential act we must take. We must begin to fill that strategic petroleum reserve. Not only must we look at it from the standpoint of economic cost, which I believe justifies filling the strategic petroleum reserve, but also, we must consider the national security implications.

This is a long overdue amendment, which I strongly support, and I applaud the Senator from Kansas for offering it at this time, on this bill.

Mr. DOLE. Mr. President, I thank the distinguished Senator from New Jersey. I think he is exactly right.

We talk about cost and wring our hands. It would be reasonable to look ahead, as the distinguished Senator from New Jersey has indicated, and consider what would happen in the event of an interruption, and consider the cost and the burden that would place on the American people. I think it is time we take some action to assure that we start again to build up this strategic petroleum reserve.

Mr. President, I ask to modify my amendment in subparagraph (b), by inserting after the word "section," "232(b) of the Trade Expansion Act of 1962 as amended," striking out "107 of the Energy Policy and Conservation Act."

I think that is correct, and I sent that modification to the desk.

The PRESIDING OFFICER. The amendment is so modified.

The amendment as modified, is as follows:

On page 147, following line 12, insert the following:

SEC. . (a) Notwithstanding any other provision of law the President shall immediately resume the purchase of crude oil, by contract, for the Strategic Petroleum Reserve established in the Energy Policy and Conservative Act, at a minimum average rate of 100,000 barrels per day per year.

(b) Any import quotas imposed under section 232b of the Trade Expansion Act of 1962 as amended shall not apply to the Strategic Petroleum Reserve build up.

(c) There are authorized to be appropriated to carry out the purposes of this section such sums as may be necessary.

(d) The Department of Energy is authorized to contract for construction of facilities needed to store the additional reserves.

SEC. . Paragraphs (1) and (4) of section 160(b) of the Energy Policy and Conservation Act are repealed.

Mr. DOLE. I do not know whether the managers will be willing to accept the amendment.

Mr. JOHNSTON. Mr. President, I have looked at the amendment in its original form with care, because I was not aware of import quotas under EPAC. They are imposed under the Trade Expansion Act.

However, we just adopted on the floor of the Senate a limitation on the President's power to impose quotas and fees under the Trade Expansion Act; and I am advised that the House blue-slipped our action, stating that that was a matter dealing with the jurisdiction of the House as to possible revenue measures. Therefore, they blue-slipped us.

The senior Senator from Louisiana is very cognizant of this matter.

There are other objections as well, but I hope that objection will be sufficient for the Senator from Kansas to withhold his amendment until another day and another vehicle.

Mr. DOLE. I am not certain I understand the House suggestion that this would be subject to a point of order.

Mr. JOHNSTON. It might be subject to a point of order, because the Trade Expansion Act deals with quotas and fees. The House takes the position that those matters, under the Constitution, must originate in the House. I wish it were otherwise, but they just blue-slipped us on this act.

Mr. DOLE. One way to deal with that is this: The Senator from Kansas further modifies the amendment to strike out that subsection and reletter the other paragraphs. I will send the modification to the desk. That would take care of that.

The PRESIDING OFFICER. Will the Senator restate the modification?

Mr. DOLE. The Senator would strike out the section just referred to by the distinguished Senator from Louisiana.

Mr. JOHNSTON. Subsection (b).

Mr. DOLE. Subsection (b). Subsection (c) would be (b), and subsection (d) would be (c).

I send that modification to the desk.

The PRESIDING OFFICER. The amendment is so modified.

The amendment, as further modified, is as follows:

On page 147, following line 12, insert the following:

SEC. . (a) Notwithstanding any other provision of law the President shall immediately resume the purchase of crude oil, by contract, for the Strategic Petroleum Reserve established in the Energy Policy and Conservation Act, at a minimum average rate of 100,000 barrels per day per year.

(b) There are authorized to be appropriated to carry out the purchases of this section such sums as may be necessary.

(c) The Department of Energy is authorized to contract for construction of facilities needed to store the additional reserves.

SEC. . Paragraphs (1) and (4) of section 160(b) of the Energy Policy and Conservation Act are repealed.

Mr. JOHNSTON. Mr. President, as the Senator from Kansas knows and as I have stated in this Chamber before, I strongly support his view that the strategic petroleum reserve is a matter of first priority for this Nation in dealing with energy shortages should we get into that kind of difficult situation which is becoming more and more thinkable. Just yesterday it seemed it was almost unthinkable that this Nation would be subjected to a severe cut off. It is becoming more and more thinkable, more and more possible, in fact it looms on the horizon like a sword of Damocles over our head.

The Senator from Kansas will be pleased to know that just yesterday the conference committee on the Interior appropriations bill deleted that section of the bill as provided by the Senate which transferred \$1.5 billion from SPR to the Department of Energy. That has been deleted so that \$1.5 billion is still with SPR.

However, I urge the Senator not to put in this amendment in its present form for two reasons:

First of all, it requires a minimum average rate fill-up of that reserve at 100,000 barrels per day per year.

I think this might, first of all, exceed the capacity we have at some assumed point because we have to leach out those caverns in order to receive the oil. Of course, there is room for some days now, but, nevertheless they need to leach out those caverns in order to make room for more capacity.

Second, and more seriously, to require and enshrine in the statutes a requirement of 100,000 barrels per day without the authority and the ability of the President to modify that in the event, for example, of a cutoff, an embargo, or a shortage, might have a statutory effect that would exacerbate the gasoline lines which might be extant at any particular time.

Certainly, we would need to suspend any activity to fill up the SPR during such a shortage.

Finally, as to the last section which says, "Paragraphs (1) and (4) of section 160(b) of the Energy Policy and Conservation Act are repealed." Those are the provisions that state that in filling up this reserve the President shall seek to minimize the cost and minimize the

impact of such acquisition upon supply levels and market forces. Of course, what this means is that in the cyclical business of oil pricing under present law the President must look to those market cycles in picking the best time to fill SPR. We do not want to require him to buy at the top of the market, to buy in times of short supply, to perhaps even exacerbate a worldwide shortage.

I wish there were another formulation of this amendment because I am very sympathetic to what the Senator is trying to do. I wish at least to have some expression of sentiment by this body that we wish the President to resume that fill-up. I think if we had that expression of sentiment incorporated in the bill perhaps that would accomplish what we are after.

But to do it under the conditions stated under this amendment I believe is the wrong thing to do.

Mr. DOLA. Mr. President, I certainly respect the views of the distinguished Senator from Louisiana. The last thing I want to do is frustrate or to set some rigid figure. I think we might work out some way to express the sense of the Senate and at the same time accommodate some of the objections raised by the floor manager of the bill. If the cosponsors of the amendment do not object to that, perhaps this amendment could be set aside temporarily and we could work on some modification that might be acceptable to the distinguished Senator from Louisiana and the distinguished Senator from Idaho. I am perfectly willing to do that if that is satisfactory with the floor managers.

Mr. JOHNSTON. Yes. I am happy to work with the Senator on getting an acceptable amendment.

Mr. DOLE. Mr. President, I ask unanimous consent that this amendment be set aside temporarily so we may work out some accommodation.

The PRESIDING OFFICER. Without objection, it is so ordered.

Mr. Bayh addressed the Chair.

The PRESIDING OFFICER. The question recurs on the amendment of the Senator from West Virginia.

Mr. BAYH. Mr. President, is it appropriate to send an amendment to the desk at this time?

The PRESIDING OFFICER. The Chair states that it will take unanimous consent.

Mr. McCURE. Mr. President, I ask unanimous consent that the amendment of the Senator from West Virginia be temporarily laid aside so the Senator from Indiana may offer his amendment.

The PRESIDING OFFICER. Without objection, it is so ordered.

The Senator from Indiana is recognized.

Mr. BAYH. I thank my colleague from Idaho.

UP AMENDMENT NO. 760

(Purpose: To revise provisions relating to natural gas priorities)

Mr. BAYH. Mr. President, I send an amendment to the desk for its immediate consideration.

The PRESIDING OFFICER. The amendment will be stated.

The assistant legislative clerk read as follows:

The Senator from Indiana (Mr. Bayh), for himself and Mr. Dole, proposes an unprinted amendment numbered 760.

MR. BAYH. Mr. President, I ask unanimous consent that the reading of the amendment be dispensed with.

The PRESIDING OFFICER. Without objection, it is so ordered.

The amendment is as follows:

On page 183, line 25, insert the following:

(c) For the purposes of section 401 of the Natural Gas Policy Act of 1978 (Public Law 95-621) the term "essential agricultural use" shall include use of natural gas in the distillation of fuel-grade alcohol from food grains or biomass by existing facilities.

MR. BAYH. Mr. President, for the past few days we have been dealing with very important legislation to address our liquid fuel problems. Those of us who are supporting these efforts as strongly as we can have to be a bit frustrated by the reality that the liquid energy production we hope to stimulate by S. 932 is not going to come on line for 5 to 10 years from now.

However, there is one liquid energy source that can be brought on line almost immediately—and I mean alcohol produced by the idle distilling capacity that exists in abundance in our country.

The amendment I am offering will make it possible for gas-fired distilleries, that are presently idle, to get the natural gas they need to produce alcohol.

More specifically, it would guarantee that those distilleries that are willing to incur the added costs of retrofitting their plants to produce 190 plus proof alcohol have the natural gas to do so. The language would affect only those plants that are currently producing beverage spirits or those that have been mothballed—like the Hiram Walker plant in Peoria, Ill. The amendment is not intended to guarantee natural gas for any new plants. As a matter of policy, we probably shouldn't be encouraging the new plants to rely on gas; they should be looking for ways to use coal, waste steam, waste electricity, or renewable resources for the heat necessary for the distillation process.

During one of his last visits to the Hill, DOE Secretary Schlesinger testified before the Interior Appropriations Subcommittee, in response to my questions, that this country's best near-term opportunity to bring more ethanol into production rests in the hands of our distillers. Even if we broke ground today on some of the alcohol plants that will be built thanks to S. 932, it would be at least 2 years before the first drop of ethanol was produced. In contrast, it would take distillers only 2 to 3 months to retrofit their plants to upgrade the proof of their product. And the way things are going, Mr. President, we may need this liquid supplement that soon.

Schenley Distillers, with plants in Indiana and Kentucky, have 10 million gallons of excess capacity by themselves. A survey by the Kentucky Bureau of Energy Research conservatively estimates the idle distilling capacity in that State at 15 to 20 million gallons, of which about 8 million gallons comes from gas-fired facilities. This represents about 80 million gallons of gasohol for Kentucky. The projected consumption of gasohol in Kentucky for calendar year 1979 is 13 to 15 million gallons. So we see that in Kentucky alone we have the opportunity with this amendment to increase the market availability of gasohol fivefold.

Likewise with my State. This amendment would make it possible for Schenley to retrofit an idle distillery near Lawrenceburg, Ind.,

with an investment of \$500,000—which they are willing to make. The only thing stopping them is the Natural Gas Act. This amendment will allow them to begin manufacturing up to 7 million gallons of alcohol fuel per year in a matter of months, hopefully using Hoosier farm products. Right now, our Farm Bureau Co-op is selling gasohol statewide, but buys it from Illinois. I would like to see that alcohol produced in Indiana.

And look at the national impact. There are no firm figures on national idle distilling capacity. The estimates range from a low of 40 million gallons to a high of 270 million gallons—with the distillers running 24 hours a day/7 days a week. An industry source estimates idle capacity at about 65 million gallons. If we use Kentucky as a benchmark, we can estimate that about half of that 65 million gallons—or 32.5 million gallons—is produced by gas-fired distillers. Using the 32.5 million figure as the estimate—and this is probably conservative—we see that 32.5 million gallons of gasohol could be brought onto the marketplace. This figure is particularly dramatic because the estimated 1979 national production of fuel-grade alcohol is estimated at around 40 million gallons. Distillers have the capacity to at least double the market availability of gasohol and inject some price competition into a distinctly seller's market which is now pretty much monopolized by one producer.

Mr. President, the amendment would divert almost no natural gas from other users. Sticking with the figures of 32.5 million gallons of alcohol, we can give a ballpark estimate of how much natural gas distillers would consume. The ADM plant in Decatur, Ill., which I toured with Secretary of Energy Duncan last week, uses about 75 cubic feet of gas to produce 1 gallon of ethanol.

The ADM process does not, however, involve the drying of the final byproduct, which is the protein-rich distillers dried grain (DDG). Therefore, another 25 percent should be added to that 75-cubic-foot figure, or about 19 additional cubic feet. So, with a baseline of 94 cubic feet of gas to produce ethanol and DDG, an estimated 3 million Mcf of gas would be consumed. Three million Mcf of natural gas represents one ten-millionth of the projected 1979 national consumption of natural gas. One ten-millionth of the natural gas to double the market availability of gasohol. Mr. President, if there was ever a good use to which the so-called "gas bubble" should be put, this is it.

I hope that my colleagues will support my amendment.

I see my distinguished colleague from Kentucky here.

Mr. FORD. Mr. President, will the Senator yield?

Mr. JOHNSTON. Mr. President, will the Senator yield?

Mr. BAYH. I yield.

Mr. JOHNSTON. Mr. President, we have discussed this amendment in some detail and are willing to take this amendment to conference.

I hope we can retain it in conference. I think it is a good amendment. It will promote gasohol by giving the corn distillers appropriate relief under the Natural Gas Act and we are, therefore, ready to accept it.

Mr. DOLE. Mr. President, the Senator from Kansas is pleased to support this amendment offered by my colleague from Indiana, Mr. Bayh. The purpose of this amendment is to enforce the provisions enacted under the Natural Gas Policy Act of 1978 to provide natural gas in the production of alcohol fuels in existing facilities.

We all know that America is in dire need of an alternative, renewable source of fuel and I believe that alcohol fuel production will provide a significant part of the solution of this Nation's energy problem. Even though these fuels cannot in the near term be a major solution to our national energy needs, they do represent an important energy component and building block for the longer term. Our national energy needs must be met by developing contributions from a large number of energy supplies, building on this Nation's abundant resources. Alcohol fuels represent important supplies based on the American agriculture community and the potential for the production and marketing beyond 1985 will be quite large—especially if we develop further the existing facilities that are needing this natural gas for operation. The project facilities in operation and under construction today will lead to providing a greater proportion of our energy supply in the future.

In less than 1 year, this Nation has witnessed an explosion of interest and involvement in the alcohol fuels industry. The number of retail outlets have increased to over 800. Gasohol is currently being sold in California, Colorado, Delaware, Georgia, Illinois, Indiana, Iowa, Kansas, Kentucky, Maryland, Massachusetts, Michigan, Minnesota, Missouri, Montana, Nebraska, New Hampshire, New Jersey, New York, North Carolina, Ohio, Pennsylvania, Rhode Island, South Carolina, South Dakota, Virginia, Wisconsin, and Wyoming. Only if we expand existing technologies and the capabilities of existing plants, will sales continue.

Mr. President, I urge my colleagues to join with me in supporting this amendment. By providing this natural gas to existing facilities we will reach our goal in establishing alcohol fuels as one of the energy compounds in the future, alongside such energies as nuclear, solar, and wind. As a result our fuel costs will go down, our supplies will be replenished and increased, and our balance of payments will through a decrease in our inflation, become more equitable.

We need to master our energy problem and the production and utilization of these alternative fuels will help us do just that.

Mr. McCURE. Mr. President, I certainly agree with the objectives of the amendment of the Senator from Indiana, and I commend him for identifying a possible source of energy that could be utilized in the near term where that is one of the most critical needs.

So we are very happy to accept the amendment.

Mr. BAYH. Mr. President, I thank my colleagues for their tolerance, and I shall not continue my remarks. I might unsettle them.

Mr. Ford addressed the Chair.

The PRESIDING OFFICER. The question is on agreeing to the amendment of the Senator from Indiana.

The amendment was agreed to.

Mr. JOHNSTON. Mr. President, I move to reconsider the vote by which the amendment was agreed to.

Mr. McCURE. Mr. President, I move to lay that motion on the table. The motion to lay on the table was agreed to.

The PRESIDING OFFICER. The Senator from Kentucky.

Mr. FORD. Mr. President, I appreciate the efficiency of the Chair but I wanted to be a part of the amendment of the distinguished Senator from Indiana, since I was a cosponsor of his bill when it was intro-

duced, and to lend my support to that direction and to enforce his position.

I congratulate the floor managers of the bill for making a wise decision to help the immediate future by helping the distilleries.

I do thank the Senator from Indiana.

Mr. BAYH. Mr. President, will the Senator yield?

Mr. FORD. Yes; I yield.

Mr. BAYH. I think it is only fair that the Senator's name be added, because he joined in a letter to try to free up some of this distilling capacity.

Mr. FORD. I would be most pleased to have my name added.

Mr. BAYH. It is one of the things we can do in the short term to get liquid energy, and I congratulate the Senator from Louisiana, the Senator from Kentucky, and the Senator from Idaho.

Mr. FORD. Mr. President, I ask unanimous consent that my name be added to the amendment of the distinguished Senator from Indiana.

The PRESIDING OFFICER. Without objection, it is so ordered.

The question now recurs on agreeing to the amendment of the Senator from West Virginia.

Mr. McCLURE. Mr. President, I suggest the absence of a quorum.

The PRESIDING OFFICER. The clerk will call the roll.

The assistant legislative clerk proceeded to call the roll.

Mr. METZENBAUM. Mr. President, I ask unanimous consent that the order for the quorum call be rescinded.

The PRESIDING OFFICER. Without objection, it is so ordered.

UP AMENDMENT NO. 761

(Purpose: To provide for a study of the effects of the production of synthetic fuels on health and environment)

Mr. METZENBAUM. Mr. President, I call up an amendment at the desk and ask for its immediate consideration.

Mr. McCLURE. Mr. President, I ask unanimous consent that the amendment of the Senator from West Virginia be temporarily laid aside so that the Senator from Ohio can offer his amendment.

The PRESIDING OFFICER. Without objection, it is so ordered.

The clerk will report.

The assistant legislative clerk read as follows:

The Senator from Ohio (Mr. Metzenbaum) proposes an unprinted amendment numbered 761.

Mr. METZENBAUM. Mr. President, I ask unanimous consent that further reading of the amendment be dispensed with.

The PRESIDING OFFICER. Without objection, it is so ordered.

The amendment is as follows:

On page 147, insert the following between lines 12 and 13:

SUBTITLE L—STUDY

SEC. 196. (a) The Secretary of Energy shall conduct a comprehensive and ongoing study of the effects on the environment and on health related to the production and use of synthetic fuels.

(b) There are authorized to be appropriated to carry out the purposes of this section a minimum of \$5,000,000 to remain available until expended.

Mr. METZENBAUM. Mr. President, I am proposing an amendment which would direct the Department of Energy to undertake research studies, simultaneously with synfuels development, to examine the

impact of the production and use of synfuels on the environment and on health.

This amendment is not a statement of skepticism about the development of new technologies to deal with the energy problem in this country. Rather, this proposal is an attempt to avoid some of the unforeseen problems that new products and technologies have created in the past.

All this amendment would do is insure that the byproducts of synfuel production be assessed as to their impact on the workers involved with their production, on the Americans who use the product, and on the environment.

Tomorrow, the National Academy of Sciences will publish a report of their October Conference on Synfuels. This report will recommend that as pilot plants are built to develop and demonstrate new processes, we should at the same time carefully assess the impact of synfuels production. Such assessment, the report will suggest, should be an integral part of the synfuel development process. I think the recommendations of the prestigious academy will speak for themselves.

I urge your support on this proposal. For a mere \$5 million of a \$20 billion plan, we determine early on what, if any, effects synfuel production will have on the health and safety of all Americans.

I hope the floor managers of the bill will see fit to accept the amendment.

The PRESIDING OFFICER. The Senator from Louisiana.

Mr. JOHNSTON. Mr. President, my only concern is this phrase "a minimum of." Would the Senator be willing to strike those three words "a minimum of" so that we know what the authorization is?

Mr. METZENBAUM. I accept the suggestion.

The PRESIDING OFFICER. The amendment is so modified.

The amendment, as modified, is as follows:

On page 147, insert the following between lines 12 and 13:

SUBTITLE L—STUDY

"SEC. 196. (a) The Secretary of Energy shall conduct a comprehensive and ongoing study of the effects on the environment and on health related to the production and use of synthetic fuels.

(b) There are authorized to be appropriated to carry out the purposes of this section \$5,000,000 to remain available until expended.

Mr. JOHNSTON. Mr. President, we are happy to accept this amendment to study the environmental and health effects of synfuels. We hope this first phase of the Synfuels Corporation will show that they do not have a great effect, but we will not know that until we try and until we study it. So I support this amendment.

Mr. METZENBAUM. I thank the Senator.

Mr. President, before acting upon it, I ask unanimous consent that the distinguished senior senator from West Virginia (Mr. Randolph), and the chairman of the Environment and Public Works Committee, be added as a cosponsor.

The PRESIDING OFFICER. Without objection, it is so ordered.

Mr. McCLURE. Mr. President, we have no objection. I think we ought to know what the effects may be, and I think it is a constructive amendment. I am happy to agree with it.

Mr. METZENBAUM. I thank my friend from Idaho.

The **PRESIDING OFFICER**. The question is on agreeing to the amendment of the Senator from Ohio.

The amendment was agreed to.

Mr. **METZENBAUM**. Mr. President, I move to reconsider the vote by which the amendment was agreed to.

Mr. **JOHNSTON**. I move to lay that motion on the table.

The motion to lay on the table was agreed to.

The **PRESIDING OFFICER** (Mr. Baucus). The question now recurs on the amendment of the Senator from West Virginia.

Mr. **McCLURE**. Mr. President, I suggest the absence of a quorum.

The **PRESIDING OFFICER**. The clerk will call the roll.

The assistant legislative clerk proceeded to call the roll.

Mr. **McCLURE**. Mr. President, I ask unanimous consent that the order for the quorum call be rescinded.

The **PRESIDING OFFICER**. Without objection, it is so ordered.

Mr. **McCLURE**. Mr. President, I ask unanimous consent that the amendment of the Senator from West Virginia (Mr. Robert C. Byrd) temporarily be laid aside and that the Senator from Massachusetts (Mr. Tsongas) be recognized to offer six amendments.

The **PRESIDING OFFICER**. Without objection, it is so ordered.

UP AMENDMENT NO. 762

Mr. **TSONGAS**. Mr. President, I call up my amendment at the desk.

The **PRESIDING OFFICER**. The amendment will be stated.

The legislative clerk read as follows:

The Senator from Massachusetts (Mr. Tsongas) proposes an unprinted amendment numbered 762.

Mr. **TSONGAS**. Mr. President, I ask unanimous consent that further reading of the amendment be dispensed with.

The **PRESIDING OFFICER**. Without objection, it is so ordered.

The amendment is as follows:

On page 341, line 7, add the following: "and \$275,000,000 for the fiscal year ending September 30, 1983. In any year no more than \$10,000,000 shall be available to carry out the provisions of section 810."

Mr. **TSONGAS**. Mr. President, the first amendment authorizes \$275 million for fiscal year ending September 30, 1983. What happened in committee was that we agreed to level funding after 1982, and that figure was simply not put in the deliberations. So that is the same figure that is there for fiscal year 1982 and it would be continued at the same level through fiscal year 1983.

Mr. **JOHNSTON**. Mr. President, the Senator is correct. We accept the amendment.

Mr. **McCLURE**. Mr. President, the \$275 million figure on the third year of authorization has our acceptance. We accept this amendment.

The **PRESIDING OFFICER**. The question is on agreeing to the amendment.

The amendment (UP No. 762) was agreed to.

UP AMENDMENT NO. 763

Mr. **TSONGAS**. Mr. President, I call up my second amendment.

The **PRESIDING OFFICER**. The amendment will be stated.

The second assistant legislative clerk read as follows:

The Senator from Massachusetts (Mr. Tsongas) proposes an unprinted amendment numbered 763.

On page 225, line 20, strike the words "and \$450 million for fiscal year ending—"

The amendment is as follows:

On page 225, line 20, strike the words "and \$450,000,000 for the fiscal year ending September 30, 1985." and replace the number "\$450,000,000" on lines 15, 16, 17, and 19 with "\$800,000,000".

Add at the end of Sec. 415 the following: "In any year no more than \$20,000,000 shall be available to carry out the purposes of Sec. 411."

Mr. TSONGAS. Mr. President, this amendment authorizes for 1980 through 1985—the authorization is raised from \$450 million to \$800 million and reflects the authorization for the conservation bank.

Mr. JOHNSTON. Mr. President, the Senator correctly states the amendment. It is acceptable.

Mr. McCLURE. Mr. President, I do want to confirm that this amendment has been reviewed on this side and it is acceptable.

The PRESIDING OFFICER. The question is on agreeing to the amendment.

The amendment (UP No. 763) was agreed to.

UP AMENDMENT NO. 764 (EN BLOC)

Mr. TSONGAS. Mr. President, I send to the desk the third and fourth amendment. I ask unanimous consent that these two amendments be considered en bloc.

The PRESIDING OFFICER. Without objection, it is so ordered.

The amendment en bloc will be stated.

The legislative clerk read as follows:

The Senator from Massachusetts (Mr. Tsongas) proposes an unprinted amendment numbered 764.

On page 213, strike lines 4 through 14 and insert in lieu thereof:

Section 405(a)—

The amendments en bloc are as follows:

On page 213, strike lines 4 through 14 and insert in lieu thereof:

"Sec. 405. (a) There is hereby created the Energy Conservation Bank (hereafter referred to as 'the Bank') which shall be in the Department of Housing and Urban Development and shall have the same corporate powers given the Government National Mortgage Association in section 309(a) of the National Housing Act. The Bank shall have succession until September 30, 1984.

"(b) There is established in the Department of Housing and Urban Development the position of President, Solar and Conservation Banks, which shall be filled by the President with the advice and consent of the Senate and which shall be compensated at the rate now or hereafter prescribed for Executive Level V by Section 4316 of Title 5 United States Code. Subject to the direction of the Secretary of HUD and the consultation of the Advisory Board, the President, Solar and Conservation Banks shall as part of his duties, manage, and supervise the affairs of the Bank with the assistance of an Executive Vice President, Conservation Bank, appointed by him to carry out such functions, powers, and duties as he shall prescribe.

"(c) The General Accounting Office shall periodically audit the financial transactions of the Bank, and, for this purpose, shall have access to all of its books, records, and accounts.

ment the position of President, Solar and Conservation Banks, which shall be deposited into the miscellaneous receipts of the Treasury.

"(e) No officer, attorney, agent, or employee of the Energy Conservation Bank may participate, directly or indirectly, in any manner in the deliberations upon, or the determination of, any matter affecting his personal interest, or the interests of any corporation, partnership, or association with which he is directly or indirectly associated.

"(f) Where deemed appropriate the administrative functions of the Conservation Bank shall be performed jointly with those of the Solar Bank.

"(g) The Secretary of Housing and Urban Development may permit the Bank to utilize the services of personnel within the Department of Housing and Urban Development, including the personnel of the Government National Mortgage Association, for the purpose of carrying out the provisions of this subtitle."

On page 330, strike lines 14 through 24, and on page 331, strike lines 1 through 20 and insert in lieu thereof:

"Sec. 804. (a) There is hereby created a Solar Energy Development Bank (hereafter referred to as the Solar Bank) which shall be in the Department of Housing and Urban Development and shall have the same corporate powers given the Government National Mortgage Association in section 309(a) of the National Housing Act. The Bank shall have succession until September 30, 1985.

"(b) There is established in the Department of Housing and Urban Development the position of President, Solar and Energy Conservation Banks, which shall be filled by the President with the advice and consent of the Senate and which shall be compensated at the rate now or hereafter prescribed for Executive Level V by Section 4316 of Title 5 of U.S.C. Subject to the direction of the Secretary of HUD and in consultation with the Advisory Board, the President, Solar Energy Conservation Banks shall, as part of his duties, manage and supervise the affairs of the Solar Bank with the assistance of an Executive Vice President, Solar Bank, appointed by him to carry out such functions, powers and duties as he shall prescribe.

"(c) The General Accounting Office shall periodically audit the financial transactions of the Solar Bank, and, for this purpose, shall have access to all of its books, records, and accounts.

"(d) The Solar Bank may impose fees or charges for its services which shall be deposited into the miscellaneous receipts of the Treasury.

"(e) No officer, attorney, agent, or employee of the Solar Bank may participate, directly or indirectly, in any manner in the deliberations upon, or the determination of, any matter affecting his personal interest, or the interests of any corporation, partnership, or association with which he is directly or indirectly associated.

"(f) Where deemed appropriate the administrative functions of the Solar Bank shall be performed jointly with those of the Conservation Bank.

"(g) The Secretary of Housing and Urban Development may permit the Solar Bank to utilize the services of personnel within the Department of Housing and Urban Development, including the personnel of the Government National Mortgage Association, for the purpose of carrying out the provisions of this title."

Mr. TSONGAS. Mr. President, in consideration of the Solar Bank and Conservation Bank, there was some concern expressed by the floor manager and others as to the structure. These two amendments reflect a series of negotiations with the floor manager and the ranking minority member. The solar and conservation banks are united under one president. The solar and conservation banks shall have high visibility in HUD and there is a chance to streamline what may otherwise have been an awkward administrative setup. In this way, they are both under the same structure with similar chains of command and, therefore, we think will be more efficient.

Mr. JOHNSTON. Mr. President, the Senator correctly states the amendment. We concur in it.

Mr. McCLURE. Mr. President, we have no objection to the amendments and concur in the amendments considered en bloc.

The PRESIDING OFFICER. The question is on agreeing, en bloc, to the amendments.

The amendments, en bloc (UP No. 764) were agreed to.

UP AMENDMENT NO. 765

Mr. TSONGAS. Mr. President, I send a fifth amendment to the desk. The PRESIDING OFFICER. The amendment will be stated. The legislative clerk read as follows:

The Senator from Massachusetts (Mr. Tsongas) proposes an unprinted amendment numbered 765.

On page 332 add section 805(c)—

The amendment is as follows:

On page 332 add sec. 805(c) that with respect to any expenditures for which a loan under this title is sought, the sum of the subsidy paid by the Solar Bank to the financial institution, appropriately discounted over the life of the loan, and the amount of any solar tax credits claimed by the applicant for such expenditures, pursuant to section 101 of Public Law 95-618, does not exceed 50 percent of the amount of such expenditures. In the case of passive solar systems, which might involve performance based subsidies, the Secretary is authorized to promulgate regulations which provide comparable subsidies.

Mr. TSONGAS. Mr. President, this amendment and the one that will follow referred to the concerns expressed by the Senator from Louisiana that on the solar loan program that there is not some kind of a cap. So we agreed there would be two amendments, one which places the cap of income at \$50,000 after the second year of the program and the second amendment says that the subsidy cap is to equal 50 percent of the total expenditure. So the loan program and tax credits, whatever, would add up to a maximum of 50 percent. I think this is a reasonable amendment. I thank the chairman for his time and consideration.

Mr. JOHNSTON. Mr. President, this whole series of amendments reflects an agreement between both the minority and majority floor managers of the bill and Senator Tsongas and Senator Durkin. I think they make a better solar bank bill.

First of all, they do put that income test on the solar bank loans. In the committee bill, there was no income test, so it was literally possible for a millionaire to get an 82-percent subsidy on a solar installation, which was not appropriate, in my view. So what we have done is put an income test, but after the second year.

The Senator from Massachusetts has a point that we need to get the solar industry started. So this will give them a chance to get started for 2 years, with the more wealthy people being able to come in and sort of break the ice and get the industry started, but thereafter the income test will be a \$50,000 a year indexed, which I think is an appropriate level.

Then we do have now a subsidy cap so that all subsidies, tax credits, loans, grants, whatever, they will all be limited to 50 percent of the total expenditures.

We will have some work to do in the conference committee to provide for some of the details of the matter as to which Federal agency has responsibility for overseeing the whole matter.

We have here a package which strengthens the solar conservation bank, elevates its status, increases somewhat its funding, and, in amendments to be offered, provides for a workable discount rate on the solar installations on Federal buildings, and other definitions which make, I think, a good package to strengthen the solar bank concept.

So, Mr. President, I would concur with the amendment.

Mr. TSONGAS. If I may, I would like to explain to the Senator from Idaho that the way the bill is written now there are no caps at all, which is my preferred position. I can understand the position of the Senator from Idaho and the Senator from Louisiana.

This is an attempt to put on caps.

Mr. McCLURE. Mr. President, I want to make clear that we have cleared the amendment on this side of the aisle, but the Senator from Idaho has reservations concerning the income cap or the income test being applied here. The majority of the Members on my side of the aisle supported the idea of an income test in the committee deliberations. The Senator from Idaho did not. I agreed at that time with my colleagues who were arguing that it should not be put on. I am not sure in my mind that this is a step forward.

I think the subsidy cap that has been proposed is a good idea. It is administratively difficult to do under the language as submitted. I think the agreement is that we agree to that in concept and we will do what is necessary in redrafting, if that proves to be the case, as we take it to the conference. But we accept the concept of the subsidy cap.

Mr. President, with respect to the solar bank, if our objective is to get a lot of solar use in order to substitute for imported oil, we do not further that objective by putting artificial limits on the encouragement to use it. So the Senator from Idaho wants to clearly state that while on behalf of the minority as a whole he will accept it, the junior Senator from Idaho finds it objectionable.

Mr. TSONGAS. It is my understanding that the House does not have such a cap so it can be resolved in conference.

Mr. McCLURE. I appreciate that statement. I just wanted to make clear that, speaking for the minority, I speak for them with one voice but for myself with another.

Mr. RANDOLPH. Mr. President, who has privilege of the floor?

The PRESIDING OFFICER. The Senator from West Virginia is recognized.

Mr. RANDOLPH. Mr. President, I take this occasion to commend the diligent Senator from Massachusetts (Mr. Tsongas) for his efforts on the subject of solar experimentation and the potential for solar use in volume prior to what is thought to be possible. In the State of West Virginia, as in other States, we participated during the experimental stage and have many projects underway, under the set-aside of the Department of Energy. At the location of the National Fish Hatchery, which is 70 miles west of the Capitol, we have, for example, an installation.

I am a believer in solar energy. Certainly, I might be fairly accused and I accept the assertion that I am strongly woven into the subject matter of coal. I do believe, however, that so far as the alternatives to petroleum now being brought in from abroad at the price we have to pay and in the amounts we receive, that this legislation is properly oriented, overall, to an aggressive synthetic liquid fuels program. I would not want it to be understood because of my fight for this bill, with its emphasis on coal and oil shale, that I do not believe there are other alternatives. In fact, these alternatives will be moving into the energy picture in a few years, hopefully, to provide greater proof for the role for solar energy as a valuable asset in our effort to establish independence, energywise, for our country and our people.

Mr. TSONGAS. Mr. President, I thank the Senator from West Virginia (Mr. Randolph) for his very kind remarks. I must say I feel better about coal all the time.

Mr. President, a parliamentary inquiry. There were two amendments. Are they both before the body?

The PRESIDING OFFICER. There is one amendment.

Mr. TSONGAS. Inasmuch as we have discussed both, I ask that they be considered as one amendment.

Mr. McCLURE. Let us identify the subject matter.

Mr. TSONGAS. The income limits and the subsidy.

Mr. McCLURE. The income test and the subsidy cap?

Mr. TSONGAS. That is correct.

Mr. McCLURE. We are combining those to be considered en bloc?

The PRESIDING OFFICER. The Chair will have to examine the amendments in order to answer that.

The Chair informs the Senator that the previous amendment deals with the solar bank and subsidy cap.

Mr. McCLURE. I wonder if the Chair would repeat that comment.

The PRESIDING OFFICER. It is the understanding of the Chair that the amendment presently under consideration deals with the solar base subsidy cap. The second amendment is the income test amendment.

Mr. McCLURE. And it is those two amendments on which it is asked that they be considered en bloc?

The PRESIDING OFFICER. That is correct.

Mr. McCLURE. I have no objection.

The PRESIDING OFFICER. The question is on agreeing to the amendments.

The amendments (No. UP 765) were agreed to.

Mr. TSONGAS. Mr. President, I move to reconsider the votes by which the six amendments were agreed to.

Mr. McCLURE. Mr. President, I move to lay that motion on the table.

The motion to lay on the table was agreed to.

Mr. TSONGAS. Mr. President, I ask unanimous consent that the amendment of the Senator from West Virginia be laid aside temporarily so that Senator Durkin may call up the last of the solar amendments. I ask unanimous consent that I be added as a cosponsor.

The PRESIDING OFFICER. (Mr. Stewart). Without objection, it is so ordered.

The Senator from New Hampshire.

UP AMENDMENT NO. 766

Mr. TSONGAS. Mr. President, I will call up the amendment for Senator Durkin and myself and ask for its immediate consideration.

The PRESIDING OFFICER. The amendment will be stated.

The legislative clerk read as follows:

The Senator from New Hampshire (Mr. Durkin), for himself and Mr. Tsongas, proposes an unprinted amendment numbered 766.

Mr. DURKIN. Mr. President, I ask unanimous consent that further reading of the amendment be dispensed with.

The PRESIDING OFFICER. Without objection, it is so ordered.

The amendment is as follows:

Sec. 606 is amended by deleting subsection (b) and inserting in lieu thereof:

(b) For the purposes of this section, a solar energy system shall be considered cost-effective if the simple sum of all capital and operating expenses associated with the system can be recovered over the expected life of the system or during a period of thirty years, whichever is shorter, using noninflating dollars, marginal fuel costs as determined by the Secretary, and a real discount rate of 3 per centum per year.

(c) For the purposes of this section, the marginal fuel cost shall be the equivalent of the cost of oil in international markets plus fees for international transportation, refining, and domestic delivery. In the case of natural gas, coal, and nuclear fuel, the marginal cost shall be the cost of the most expensive 10 per centum of fuel supplies in the region purchased or contracted for during the previous quarter. In the case of electricity, the marginal price shall be the least cost new supply which would have been charged by the utility in the service area supplying the facility. Least cost new supply may, if appropriate, include externally purchased power and demand management. In the case where new capital is required the assumption shall be that the new capital plant and equipment in the service area is financed at the average cost of new capital available to the utility, that equipment is purchased at the prices expected for new plants ordered in the region, and that fuel used by the utility is purchased at the marginal prices described previously.

Subsections (c), (d), (e), (f), (g), (h), and (i) are amended to become subsections (d), (e), (f), (g), (h), (i), and (j).

Mr. TSONGAS. Mr. President, one of the issues related to solar system was the issue of cost-effectiveness over the life of the facility. This amendment reads:

(b) For the purposes of this section, a solar energy system shall be considered cost-effective if the simple sum of all capital and operating expenses associated with the system can be recovered over the expected life of the system or during a period of thirty years, whichever is shorter, using noninflating dollars, marginal fuel costs as determined by the Secretary, and a real discount rate of 3 per centum per year.

(c) For the purposes of this section, the marginal fuel cost shall be the equivalent of the cost of oil in international markets plus fees for international transportation, refining, and domestic delivery. In the case of natural gas, coal, and nuclear fuel, the marginal cost shall be the cost of the most expensive 10 per centum of fuel supplies in the region purchased or contracted for during the previous quarter. In the case of electricity, the marginal price shall be the least cost new supply which would have been charged by the utility in the service area supplying the facility. Least cost new supply may, if appropriate, include externally purchased power and demand management. In the case where new capital is required the assumption shall be that the new capital plant and equipment in the service area is financed at the average cost of new capital available to the utility, that equipment is purchased at the prices expected for new plants ordered in the region, and that fuel used by the utility is purchased at the marginal prices described previously.

Mr. President, the language which has been worked out is simply to define what is meant by life cycle cost effectiveness.

Mr. JOHNSTON. Mr. President, this amendment establishes a life cycle cost at 3 percent real; that is, 3 percent over and above inflation. So that, in order to determine whether an insulation has energy efficiency, you would take the price of energy, the top 10 percent of your energy, project that out as to what that energy will cost over the life cycle of the insulation, and then decrease it by a factor which equals inflation plus 3 percent. That, I think, establishes a realistic yardstick for determining whether the insulation, solar insulation, is life cycle cost effective. I think it is better, probably, than the Secretary of Energy is now using. I understand he is now using 10 percent.

Mr. TSONGAS. That is correct.

Mr. JOHNSTON. This is much more realistic and we accept the amendment.

Mr. TSONGAS. Mr. President, I only add that one of the issues to be raised next year before the Banking Committee is the question of HUD using similar analyses in the instance of using solar equipment in its section 8 facilities and others. I hope that the officials of HUD will take a look at this language and consider it for their program next year.

The PRESIDING OFFICER. The question is on agreeing to the amendment.

The amendment was agreed to.

Mr. TSONGAS. Mr. President, I move to reconsider the vote by which the amendment was agreed to.

Mr. JOHNSTON. I move to lay that motion on the table.

The motion to lay on the table was agreed to.

The PRESIDING OFFICER. The question recurs on the amendment of the Senator from West Virginia.

Mr. DOLE. Mr. President, I ask unanimous consent that the amendment be temporarily set aside and that we consider at this time the Dole amendment that was set aside earlier.

The PRESIDING OFFICER. Without objection, it is so ordered.

UP AMENDMENT NO. 759

The modified amendment will be read.

The legislative clerk read as follows:

The Senator from Kansas (Mr. Dole) repropose his unprinted amendment numbered 759, as amended.

Mr. DOLE. Mr. President, I send a modification of that amendment to the desk.

The PRESIDING OFFICER. The Senator has a right to modify his amendment and the amendment is so modified.

The amendment, as modified further, is as follows:

On page 147, following line 12, insert the following:

SEC. . (a) Notwithstanding any other provision of law, including paragraphs (1) and (4) of Sec. 160(b) of EPCA, the President shall immediately resume the purchase of crude oil, by contract, for the Strategic Petroleum Reserve established in the Energy Policy and Conservation Act, no later than 4 months after the date of enactment of this Act, at a minimum average rate of 100,000 barrels per day per year, subject to the availability of adequate storage capacity.

(b) There are authorized to be appropriated to carry out the purposes of this section such sums as may be necessary.

(c) The Department of Energy is authorized to contract for construction of facilities needed to store the additional reserves.

Mr. DOLE. Mr. President, I ask unanimous consent that this amendment be temporarily set aside so the distinguished Senator from New York may bring up an amendment.

Mr. JAVITS. I ask unanimous consent for that purpose.

The PRESIDING OFFICER. Is there objection? Without objection, it is so ordered.

UP AMENDMENT NO. 767

(Purpose: To require a study of the impact on fuel economy of passenger cars and light duty trucks with regard to certain types of tires and oils).

Mr. JAVITS. Mr. President, I send an amendment to the desk and ask for its immediate consideration.

The PRESIDING OFFICER. The amendment will be stated.

The legislative clerk read as follows:

The Senator from New York (Mr. Javits) proposes an unprinted amendment numbered 767.

Mr. JAVITS. I ask unanimous consent that further reading of the amendment may be dispensed with.

The PRESIDING OFFICER. Without objection, it is so ordered.

The amendment is as follows:

At the appropriate place insert the following:

Sec. . (a) The Administrator of the Environmental Protection Agency in consultation with the Secretary of Energy and the Secretary of Transportation shall conduct a study with regard to the impact of (1) low rolling resistance tires, (2) slippery oils, and (3) underinflated tires, on the fuel economy of passenger cars and light duty trucks.

(b) The Administrator of the Environmental Protection Agency shall prepare a report on the results of the study required by subsection (a) and submit such report and recommendations to the Congress not later than six months after the date of enactment of this Act.

Mr. JAVITS. Mr. President, I am deeply concerned that we as a nation are not doing all we can to reduce automobile fuel consumption, which is the single largest contributor to our Nation's current and prospectively worsening energy shortage and dependence on foreign oil supplies.

My concern was heightened recently by a number of reports which indicated that substantial energy savings could be realized through implementation of measures designed to increase the fuel efficiency of the existing automobile fleet.

Attention in the Congress and within the administration has focused almost exclusively on reducing gasoline consumption by requiring automobile manufacturers to produce more fuel efficient cars. However, the fuel efficiency of the existing fleet of cars has gone almost unnoticed. I am convinced that while reducing the energy consumption of new automobiles in the long term will assist our energy conservation effort, it will not in itself resolve our present energy crisis. However, if we are able to increase the fuel efficiency of the existing fleet, we can have a direct and immediate impact on fuel consumption.

The existing automobile fleet represents 90 percent of the passenger cars and light-duty trucks on the road today. In addition, these cars and trucks consume approximately 5 million barrels of oil per day compared to 500,000 barrels of oil per day consumed by new cars. These figures demonstrate the need to focus our attention on reducing the energy consumption of the existing fleet. In addition, we cannot claim to have a national comprehensive automobile fuel economy program, until the existing automobile fleet is incorporated into our conservation efforts.

This amendment is designed to be a first step toward including the existing fleet in our automobile fuel conservation effort. It would require the Environmental Protection Agency, in consultation with the Department of Energy and the Department of Transportation, to examine the impact on the fuel economy of passenger cars and light-duty trucks of: Low-rolling-resistance tires; slippery oils; underinflated tires.

These areas have been identified by researchers as offering the best method for reducing the gasoline consumption of the existing fleet.

Should EPA find that these three factors would make a substantial contribution to the reduction of fuel consumption, its report and recommendations could serve as a basis for legislative action. In addition,

I hope that this amendment will focus attention on this most important issue within Congress and the administration.

Mr. President, as I have said, this amendment seeks a study by the Environmental Protection Agency, in consultation with the Department of Energy and the Department of Transportation, to examine what can be saved in fuel economy for passenger cars and light duty trucks if we go to low rolling resistance tires and slippery oils. These areas have been identified by researchers as offering the best methods for reducing gasoline consumption of the existing fleet. The estimate is that it could affect a reduction of 10 percent in the use of oil which is turned into gasoline, which would be 600,000 barrels a day by 1980.

Mr. President, the only reason I interrupted Senator Dole and sent this amendment to the desk is, if it is found acceptable by the managers, fine. Otherwise, I shall pull it out because I do not believe an amendment of this kind should be contested.

The staff has had this amendment for a week, I say to Senator Johnston, so perhaps they could advise the Senator and the other manager.

I yield to Senator Bumpers.

Mr. BUMPERS. Mr. President, is the Senator asserting that a study such as this is not in existence now?

Mr. JAVITS. I have checked with the staff and I understand that no such research exists.

Mr. BUMPERS. I understand from the Department of Energy, especially with regard to the inflated tires, that they do have a study.

Mr. JAVITS. I have checked with my own researcher, who is sitting next to me. Apparently, this is an area that should be looked into and apparently has not been.

Mr. McCLURE. Mr. President, I think the study is useful and would provide some information that we ought to have. I commend the Senator from New York for offering the amendment, and I support the amendment.

Mr. JAVITS. I thank the Senator very much.

I ask the Senator from Louisiana if it is all right with him.

Mr. JOHNSTON. Mr. President, this is the amendment that directs the Secretary of EPA to study the effect on fuel economy of low rolling resistance tires?

Mr. JAVITS. Exactly.

Mr. JOHNSTON. Mr. President, it is a good amendment and we accept it.

Mr. JAVITS. I move the amendment, Mr. President.

The PRESIDING OFFICER. The question is on agreeing to the amendment.

The amendment was agreed to.

Mr. JAVITS. I move to reconsider the vote by which the amendment was agreed to.

Mr. McCLURE. I move to lay that motion on the table.

The motion to lay on the table was agreed to.

UP AMENDMENT 759

Mr. DOLE. Mr. President, are we now back to the modified Dole amendment?

The PRESIDING OFFICER. That is correct.

Mr. DOLE. President, the Senator from Kansas has heard what I consider to be the objections and reasonable objections to my original amendment. I have made a number of modifications. I have discussed these modifications with the distinguished Senator from New Jersey (Mr. Bradley). We believe that the amendment as modified does serve a purpose. We believe that we should continue purchases for the special petroleum reserve. We have now modified the amendment to read "no later than 4 months after the date of enactment of this act," so there would be some lead time.

We also suggest that, because the distinguished Senator from Louisiana objected to the 100,000 barrels per day because of the availability of storage, we have added the provision "subject to the availability of adequate storage capacity." We have removed controversial section (b) and then this last section, which was also objected to.

It seems to the Senator from Kansas, and I hope my distinguished cosponsor will agree, that we have made about all the modifications we can. I am prepared to have an up or down vote on the amendment in its present form.

I yield to my distinguished colleague from New Jersey.

Mr. BRADLEY. Mr. President, I think the modifications that have been made should meet the objections that were voiced in the Chamber by the distinguished manager of the bill.

We have made the purchase of 100,000 barrels a day subject to adequate storage capacity.

I know that over the years there has been a continuing debate on where that capacity should be, how dispersed it should be, in what form it should be. I think they are legitimate questions that should be raised.

I think probably in the next year or so they will be raised again and storage capacity will be increased because the difficulty will be broadened. But, again, it being subject to the availability of adequate storage.

I think the other changes that have been made in conjunction with the Senator from Kansas are adequate to meet my purposes. I am prepared to have an up or down vote on this issue.

Mr. DOLE. Mr. President, I appreciate the comments of the Senator from New Jersey.

I emphasize that we do provide to resume the purchase of crude oil by contract. If made today, for delivery at some later time, we could take up some storage and cut problems on delivery a year from now.

I am prepared to vote up or down.

Mr. BRADLEY. Will the Senator yield?

Mr. DOLE. Yes.

Mr. BRADLEY. The Senator has just made an important point. That is, that we at least begin to purchase by contract, perhaps not delivered for a while. But I think as we are not purchasing, we are sending a message to the suppliers of our oil, to the insecure suppliers of our oil.

I think by having the Congress state affirmatively that we are going to begin purchases again, that we will be telling them we will no longer be so vulnerable as we are tonight.

Mr. DOLE. I thank my colleague.

I am prepared to hear from the managers on the modified amendment, if it is acceptable. If not, I am prepared to ask for the yeas and nays.

The **PRESIDING OFFICER**. The Senator from Louisiana.

Mr. JOHNSTON. Mr. President, the formula of this amendment rearranges the words, but it still is subject to the same disability that we had previously. That is, it is a mandatory matter.

It does, of course, make it subject to availability of adequate storage. But it, nevertheless, mandates that filling proceed at a minimum average daily rate of 100,000 barrels per day per year.

So, Mr. President, as much as I concur with the desire of the Senator from Kansas to see this program continued, and certainly will work with him on another bill, or maybe on another amendment, I would hope he would not press this amendment at this point.

Mr. DOLE. Let me say to my friend, the Senator specifically mentioned four problems with the amendment on strategic building of reserves.

One was, technically, with subparagraph (b), so I took it out.

One was the inflexibility of the reserve purchases. So Senator Bradley and I stated that purchases would begin 4 months after enactment. So that is some flexibility.

The third objection was storage capacity may eventually conflict with our daily goal of 100,000 barrels a day. So we added "subject to the availability of adequate storage capacity."

The fourth objection was that the paragraphs originally set forth for repeal were necessary, so we retained those, but with the thought in mind the minimum fill rate is the primary objective.

So I only say that we have attempted in every respect to make reasonable adjustments in the amendment.

Mr. JOHNSTON. Will the Senator yield?

Mr. DOLE. Yes.

Mr. JOHNSTON. The Senator stated the last matter respecting paragraphs 1 and 4 of that section. Actually, that has been rearranged and put up in section (a). So the effect is precisely the same.

Mr. DOLE. With that totally removed, we have the same—well, some would call it a loophole.

But it seems to me it is a matter that deserves our attention. Certainly, not today, but maybe 2 weeks ago. We would just like to follow on it.

I do not want to take the time of the Senate, I can understand there may be very logical objection, but we would like the Senate to express its will and I ask for the yeas and nays.

Mr. JOHNSTON. If the Senator will withhold that, I will move to table and get the yeas and nays on that.

Mr. DOLE. Yes.

Mr. JOHNSTON. Mr. President, I move to table the amendment and ask for the yeas and nays.

The **PRESIDING OFFICER**. Is there a sufficient second? There is a sufficient second.

The yeas and nays were ordered.

The **PRESIDING OFFICER**. The question is on agreeing to the motion to lay on the table the amendment of the Senator from Kansas. The yeas and nays have been ordered and the clerk will call the roll.

The legislative clerk called the roll.

Mr. CRANSTON. I announce that the Senator from Nevada (Mr. Cannon), the Senator from Arizona (Mr. DeConcini), the Senator

from Massachusetts (Mr. Kennedy), the Senator from Connecticut (Mr. Ribicoff), and the Senator from Tennessee (Mr. Sasser) are necessarily absent.

I also announce that the Senator from Delaware (Mr. Biden) is absent because of illness.

I further announce that, if present and voting, the Senator from Connecticut (Mr. Ribicoff) would vote "nay."

Mr. STEVENS. I announce that the Senator from Tennessee (Mr. Baker), the Senator from Arizona (Mr. Goldwater), the Senator from Illinois (Mr. Percy), the Senator from South Dakota (Mr. Pressler), and the Senator from South Carolina (Mr. Thurmond) are necessarily absent.

I further announce that, if present and voting, the Senator from South Carolina (Mr. Thurmond) would vote "nay."

The PRESIDING OFFICER. Are there any other Senators who wish to vote?

The result was announced—yeas 36, nays 53, as follows:

[Rollcall Vote No. 394 Leg.]

YEAS—36

Bellmon	Huddleston	Muskie
Bauchwitz	Humphrey	Nelson
Burdick	Jackson	Nunn
Byrd, Harry F., Jr.	Johnston	Randolph
Chiles	Leahy	Riegle
Church	Long	Stafford
Cranston	Magnuson	Stennis
Calver	Mathias	Stevenson
Magleton	McClure	Stone
Glenn	Metzenbaum	Tsongas
Hart	Morgan	Wallop
Hollings	Moynihan	Warner

NAYS—53

Armstrong	Garn	Packwood
Baucus	Gravel	Pell
Bayh	Hatch	Proxmire
Bentsen	Hatfield	Pryor
Boren	Hayakawa	Roth
Bradley	Heflin	Sarbanes
Bumpers	Heinz	Schmitt
Byrd, Robert C.	Helms	Schweiker
Chafee	Inouye	Simpson
Cochran	Javits	Stevens
Cohen	Jepsen	Stewart
Danforth	Kassebaum	Talmadge
Dole	Laxalt	Tower
Domenici	Levin	Weicker
Durenberger	Lugar	Williams
Durkin	Matsunaga	Young
Eron	McGovern	Zorinsky
Ford	Melcher	

NOT VOTING—11

Baker	Goldwater	Ribicoff
Biden	Kennedy	Sasser
Cannon	Percy	Thurmond
DeConcini	Pressler	

So the motion to table was rejected.

Mr. JOHNSTON. Mr. President, I moved to table this amendment because this amendment is a very inflexible means of requiring the President to fill the strategic petroleum reserve at a minimum average rate of 100,000 barrels a day, notwithstanding embargoes, prices, and an overwhelming need on behalf of the American people.

We could have lines at the gas pump, and this amendment requires by statute with no discretion that the President proceed to put oil in the strategic petroleum reserve at the rate of 100,000 barrels per day minimum average rate.

Second, it repeals that protection in the Energy Policy and Conservation Act of 1975 which requires the President to seek the best price. In other words to acquire the oil at a time when the market is in a suitable condition to buy the oil.

What we have here is a requirement that the President might have to go out at spot market prices, and the highest spot price I have heard of recently is \$48, and acquire oil for that petroleum reserve.

Mr. President, I support the strategic petroleum reserve as strongly as anyone in this body. But to require under these inflexible conditions the President to proceed, notwithstanding anything else, to fill up that reserve I think is wrong.

Nevertheless, the Senate has spoken, and I will not ask for a rollcall on acceptance of the amendment. I think the Senator understands that the House of Representatives will have a chance to look at this in conference committee. If there is a way we could make this amendment less inflexible so it does not require by statute that we shoot ourselves in the foot, I would be delighted to go along with it, and I have told the Senator from Kansas that.

But in any event for the time being the Senate has spoken and I will not further object.

Mr. METZENBAUM. Mr. President, will the Senator from Kansas yield for a question?

Mr. DOLE. Yes.

Mr. METZENBAUM. Does the Senator from Kansas feel any cause for concern that if we accept this amendment, in view of the Saudis representations to us that they would cut back their production if we continue to go forward with the strategic petroleum reserves, it might do more harm than good and might actually cause the Saudis to cut back their production? Is the Senator not concerned about that?

Mr. DOLE. Mr. President, the Senator from Kansas is concerned about a lot of things around the world, including the Saudis and what is happening in Iran.

We can buy, if we wish, from Elk Hills, from some domestic source. The same threat was made to President Ford, but he kept buying these reserves, to his credit, and had we continued that practice, we would have about 300 million barrels in reserve now instead of 92 million barrels, enough for only 12 days.

But we modified the amendment in four different ways because we believed some of the objections raised by the distinguished floor manager, Senator Johnston, should have been raised, but we believe now we have satisfied and we have made it flexible. We say that no later than 4 months we make it available subject to the availability of storage. We have taken out a couple of sections that were objected to.

I believe as the Senator from New Jersey believes, and I want him to respond to this question the Senator raised because it is a good question. We can talk about price, and we can talk about supply, but, in fact, if there is an interruption what are we going to do in this country? We talk about the cost today of \$40 a barrel or \$30 a barrel, or \$26 a barrel. But, in fact, if there is an interruption we have 12-days supply. It seems to me that this is the right way to go. I am not threatening anyone. The Senator from Kansas wishes to be realistic, and I believe this is a realistic amendment.

I yield if the Senator from Ohio will yield to the Senator from New Jersey.

Mr. METZENBAUM. I am glad to yield to the Senator from New Jersey.

Mr. BRADLEY. Mr. President, in response to the question of the Senator from Ohio about the Saudis, I do not think that the energy security policy of this country should be determined in another country. I think, in fact, that is what this amendment is directed toward. As of tonight we are dependent for about 600,000 barrels of oil per day on Iran. What if that is cut off tomorrow?

We only have 94 million barrels in storage, which is 13 days' supply. Sooner or later we are going to have to address the question of energy security because 25 percent of our oil comes from insecure Persian Gulf sources.

We talk about the Energy Security Corporation, synfuel, solar, whatever. That does not protect us with the supply cut off. If your worry is higher prices, what would the prices be if Iran was cut off again, with the 600,000 barrels a day? What would be the prices if the Persian Gulf area lost production of 3.3 million barrels per day and we had not strategic petroleum reserve? In my opinion—and it is only one Senator's opinion—we have gone too long since last November for any purchases for the strategic petroleum reserve. This would be a small effort to show the world that we have begun to develop an energy security policy.

Mr. METZENBAUM. Mr. President, will the Senator from New Jersey yield? Would the Senator care to relate to the Senator from Ohio how many barrels of oil per day we import from Saudi Arabia?

Mr. BRADLEY. Our level of import from Persian Gulf States, including Iran, Saudi Arabia, Kuwait, Iraq, comes to a total of about 3.3 million to 3.8 million barrels a day.

Mr. METZENBAUM. I specifically addressed myself to Saudi Arabia's oil minister, Sheikh Yamani who made it very clear that if we continue to build up this strategic petroleum reserve they may not continue with their oil exports at the same rate to our country. There is not much question since they have increased their production level by about a million barrels per day that the Saudis have been a stabilizing force with respect to price, and what concerns me is that the proposal of the Senator from New Jersey and the Senator from Kansas is very attractive.

We have to build up our own strategic petroleum reserve, and I could not agree more with that. But we also have to be pragmatic in the world in which we live, and our major supplier of oil from an import standpoint is Saudi Arabia, and Saudi Arabia has accommodated this Nation with respect to increasing its production and

Saudi Arabia has continued to maintain a price level lower than the rest of the OPEC nations.

What I am concerned about is whether this action of the Senate flies in the face of friendly advice and concern expressed by a nation with which we have a good working relationship vis-a-vis the subject of oil imports, and whether it does more harm than good. I wonder whether or not the time of the Senate action fails to serve our National interests.

Mr. BRADLEY. In response, I say to the Senator, I, too, had a meeting with the oil minister, and he felt our OECD allies would not want that, want that we build petroleum reserves, and I can understand why he would say that, because if we build a strategic petroleum reserve that will mean there will be a somewhat greater pressure on Saudi Arabia to increase production for world consumption.

I think there should be a line drawn somewhere. I mean the thrust of our energy security policy should be diversification of our supplies of oil and not increasing dependence to the point where one supplier is controlling the foreign policy of this country.

Mr. Dole addressed the Chair.

The PRESIDING OFFICER. The Senator from Kansas.

Mr. DOLE. I will say, in response to the distinguished Senator from Louisiana's comments to the Senator from Kansas, that the Senator from Kansas did make a statement earlier, and will not repeat that now. I believe with the modifications made by the Senator from Kansas and the Senator from New Jersey we have tried to answer those objections we felt should have been addressed, and I hope further flexibility can be accommodated in the conference.

We have appropriated money now for 248 million barrels of SPR oil. That money is already appropriated. I know what has happened in the Budget Committee and the Appropriations Committee, but it is my understanding there is money now—maybe not quite that now because of the increase in cost—but I hope, in the spirit suggested by the Senator from Louisiana, if there is more flexibility needed, we can work it out in conference.

The PRESIDING OFFICER. The question is on agreeing to the amendment of the Senator from Kansas.

The amendment was agreed to.

Mr. DOLE. Mr. President, I move to reconsider the vote by which the amendment was agreed to.

Mr. McCLURE. I move to lay that motion on the table.

The motion to lay on the table was agreed to.

Mr. MUSKIE. Mr. President, what is the parliamentary situation?

The PRESIDING OFFICER. The pending question is on agreeing to the amendment of the Senator from West Virginia.

Mr. McCLURE. Mr. President, I ask unanimous consent that the amendment of the Senator from West Virginia be temporarily laid aside and that the Senator from Virginia be permitted to offer an amendment.

Mr. MUSKIE. Mr. President, was I not recognized? I tried to get recognition before final action on the Dole amendment. It may have serious budget implications which I thought needed to be discussed. As I was hearing the figures it was apparent that the Senate was moving toward a vote, and I just wanted to find out what the parliamentary situation is on the Dole amendment.

Mr. McCLURE. The Dole amendment has been agreed to.

The **PRESIDING OFFICER**. The Dole amendment has been agreed to.

Mr. MUSKIE. I am sorry to hear that. I came off the floor just momentarily. This may be a real budget buster that we just approved, and I merely want to inquire.

Mr. McCLURE. Mr. President, will the Senator yield?

Mr. MUSKIE. Yes; I yield.

Mr. McCLURE. Mr. President, I wonder if the Senator from Maine might be accommodated by setting aside the action by which the Senate adopted the Dole amendment in order to permit this discussion to take place prior to the consideration of the vote. Would the Senator from Kansas object to that?

Mr. DOLE. I do not think the Senator from Kansas objects because I know the Senator from Maine is going to make a point that is probably worth listening to. But I only say before that that we discussed with the distinguished floor manager, who had agreed after the motion to table failed, that he would not ask for the yeas and nays.

Mr. MUSKIE. I understand that, may I say to the Senator, I simply should have been on the floor. I understand that, too.

Mr. DOLE. I am willing to vacate the action. I have been here long enough to respect my colleagues, and I am very pleased to set aside the action taken and let the Senator from Maine proceed without any prejudice.

Mr. McCLURE. Mr. President, I ask unanimous consent that the action of the Senate in adopting the Dole amendment and having tabled the motion to reconsider to set aside, and that the Dole amendment therefore be the pending business before the Senate.

The **PRESIDING OFFICER**. Is there objection? The Chair hears none, and it is so ordered.

Mr. MUSKIE. Mr. President, may I have Mr. McClure's attention? May I have a quorum call for just a couple minutes so that I can get my facts straight? Mr. President, I suggest the absence of a quorum.

Mr. DOLE. Mr. President, will the Senator from Maine permit us to set aside the amendment and then move on to another. I ask unanimous consent that we temporarily set aside the embattled Dole-Bradley amendment and move on to something else.

The **PRESIDING OFFICER**. Without objection, it is so ordered.

The Chair understands that this would also require setting aside the amendment of the Senator from West Virginia.

Mr. McCLURE. Mr. President, I ask unanimous consent that that be done, temporarily.

The **PRESIDING OFFICER**. Without objection, it is so ordered. The Senator from Virginia is recognized.

AMENDMENT NO. 575

(Purpose: To amend the Surface Mining Control and Reclamation Act of 1977 (Public Law 95-87) to provide an extension of time for the submission and approval of State programs or the implementation of a Federal program, to clarify the contents of a State program, to provide for increased cooperation between the Secretary of the Interior and the States with respect to the regulation of surface coal mining operations, and for other purposes.)

Mr. WARNER. Mr. President, I send to the desk my printed amendment No. 575.

The **PRESIDING OFFICER**. The amendment will be stated.

The assistant legislative clerk read as follows:

The Senator from Virginia (Mr. Warner) proposes an amendment numbered 575.

At the end of title I—

MR. WARNER. Mr. President, I ask unanimous consent that further reading of the amendment be dispensed with.

The PRESIDING OFFICER. Without objection, it is so ordered.

The amendment is as follows:

At the end of title I insert a new subtitle as follows:

SUBTITLE L—SURFACE COAL MINING OPERATIONS

SEC. 197. Sections 502(d), 503(a), and 504(a) of the Surface Mining Control and Reclamation Act of 1977 (hereafter referred to as "the Act") are amended as follows:

(a) in section 502(d) of the Act in the last sentence, strike the words "forty-two months" and substitute the words "fifty-four months";

(b) in section 503(a) of the Act, strike the words "eighteenth-month" and substitute the words "thirtieth month";

(c) in section 504(a) of the Act, strike the words "thirty-four months" and substitute the words "forty-six months";

(d) in section 504(a)(1) of the Act, strike the words "eighteen-month" and substitute the words "thirtieth month".

SEC. 198. Sections 503(a)(7) and 701(25) of the Act are amended as follows:

(a) in section 503(a)(7) of the Act, strike the phrase "regulations issued by the Secretary pursuant to";

(b) in section 701(25) of the Act, strike the phrase "and regulations issued by the Secretary pursuant to this Act".

SEC. 199. Section 523(a) of the Act is amended by striking the words "and implement" in the first sentence thereof, and by adding at the end of the subsection a new sentence as follows: "Subject to the provision of section 523(c), implementation of a Federal lands program shall occur and coincide with the implementation of a State program pursuant to section 503 or a Federal program pursuant to section 504, as appropriate."

SEC. 200. Section 502 of the Act is amended by adding a new subsection "(g)" as follows:

"(g) Notwithstanding any other provision of this section, each State shall, to the greatest extent possible, have principal responsibility for the inspection of mines during the period of time prior to the submittal of State plans for approval. Such responsibility shall remain with each State until such time as the Secretary disapproves the State plan. The Secretary shall furnish personnel assistance to the States in carrying out this responsibility upon request of the State regulatory agency."

MR. WARNER. Mr. President, I ask unanimous consent that the name of our distinguished colleague from West Virginia (Mr. Robert C. Byrd) be added as a cosponsor of the amendment.

The PRESIDING OFFICER. Without objection, it is so ordered.

MR. WARNER. Mr. President, on September 11, the Senate reinforced Congress original intent concerning the Surface Mining Control and Reclamation Act of 1977 when it overwhelmingly passed S. 1403, the Surface Mining Amendments of 1979.

One of the primary purposes of S. 1403 was to reiterate Congress conviction that the primary governmental responsibility for developing regulations for surface mining and reclamation operations subject to the Surface Mining Act should rest with the States.

Congress had concluded in 1977 that, due to basic geographic differences in the physical properties of land and in local environmental concerns, there could not be one Federal program which could be reasonably or prudently imposed upon the diverse coal producing States. Congress clear intention on this matter was codified within section 101(f) of Public Law 95-87, the Surface Mining Act.

However, experience under Public Law 95-87 has overwhelmingly shown that what Congress unquestionably intended by written law was not being implemented in actual practice.

Extensive oversight hearings held by Congress have indicated that the States are being forced to comply, not only with very strict requirements called for by the Surface Mining Act, but also with much more burdensome regulations written by the Office of Surface Mining. These Executive regulations, contrary to the intent of Congress, did not take into consideration the individual States widely differing characteristics.

This basic inconsistency with the law, coupled with an unfortunate delay in the implementation of the act, created uncertainty among the States in formulating their individual reclamation plans—and was, indeed, one of the major reasons for a delay in this Nation's coal production program.

Accordingly—in an effort to clear up this problem and unfetter the Nation's ability to produce enough coal for meeting current and future energy needs under proposed energy programs—the Senate considered and passed S. 1403.

The vote on S. 1403 was 69 to 26. It was bipartisan and nonideological. The Senate's message to the House was clear: This legislation was vital and necessary to the Nation's energy program, and prompt action was required.

In the House, S. 1403 was referred to the House Interior Committee, chaired by Congressman Morris Udall, of Arizona.

Chairman Udall, upon receipt of S. 1403, indicated that he would not allow his committee to consider it.

In response to Mr. Udall's stated intentions, 25 members of the Interior Committee, spanning both sides of the aisle, wrote him a letter requesting committee action on the amendment.

The committee members letter, dated September 30, stated:

S. 1403 is of great concern to all of us as it very much affects the welfare of our districts and the energy independence of our country. In recent weeks considerable interest has been shown regarding much needed amendments to the Surface Mining and Reclamation Act. As you recall, the Senate and House held oversight hearings and at both hearings most of the testimony pointed to the problems with the current mining regulations and the great need for legislation to correct them.

Congressman Udall, in written correspondence, indicated that he could not support any attempt to take action on S. 1403.

Thereupon, a majority of the House Interior Committee, acting under committee rules which had been previously approved by Chairman Udall, attempted to discharge its Subcommittee on Energy and Environment from further consideration of this legislation, and thus bring the bill before the full committee for prompt action.

The chairman, however, vitiated the committee procedures, to which he had earlier agreed and which would have allowed for the committee to discharge this bill. By his actions, the chairman made it abundantly clear that his personal preferences would prevail over the will of the majority of his committee, as well as the overwhelming will of the U.S. Senate. As a result, S. 1403, still is bottled up in committee in the House.

But, Mr. President, the circumstances which existed on September 11, and which called for the passage of S. 1403, still exist today. This measure is of such importance to the Nation and to the mining com

munity that I feel it is only appropriate for Congress to take unusual steps, if necessary, to secure enactment of this bill.

Consequently, I am introducing as an amendment to S. 932 the provisions passed by the Senate as S. 1403.

The provisions of my amendment, which would be contained in a new subtitle entitled "Surface Mining Operations," have already been debated extensively and agreed to by the Senate. The purposes of my amendment are fourfold:

First. To extend the deadlines for submission and approval of State programs by 12 months;

Second. To delay implementation of a Federal lands regulatory program from October 23, 1979 until State programs are implemented in mid-1980 or early 1981;

Third. To eliminate the requirement that State regulations be identical to those of OSM—thus allowing the States to tailor their regulations to take into account the special needs and unique features of each State, so long as those regulations conform to the strict standards of the act;

Fourth. Until a State plan has been approved or disapproved, to reserve to the State regulatory agency the responsibility for controlling reclamation problems.

These purposes were embodied in S. 1403.

It is not the purpose nor the intention of this Senator—nor has it been the intention of the Senate—to overturn the existing Federal law controlling surface mining. On the contrary, as was stated on September 11, my present amendment, which was then being considered as S. 1402, reinforces the requirement that States must comply with the very stringent standards and procedures of the Surface Mining Control and Reclamation Act of 1977.

While my amendment would give the States the lead in implementing and enforcing the Surface Mining Control Act, the Federal Government would continue to exercise its secondary oversight responsibilities as set forth under the act.

Arguments have been mounted against S. 1403, that the bill would somehow subvert the intent of Congress to protect this Nation's environment when dealing with surface mining lands.

Mr. President, this is simply not the case. This Senator, and the Senate, are very concerned that the environmental requirements set forth in the law are observed and honored to the letter.

My amendment and S. 1403 merely reassert the clear intent of Public Law 95-87—that each State must be allowed to take into consideration its own individual characteristics in formulating its own individual plan. However, this State plan must comply with those environmental requirements hammered out in the Surface Mining Act of 1977.

Mr. President, I reject the implication that State officials, either in the formulation of the State plan or in its implementation, would not abide by the strict Federal environmental law requirements set forth in the act.

I firmly believe that State reclamation officials are as concerned about our environment as are Federal reclamation officials.

Moreover, State officials must live in the very environment which they are regulating. As a result, they may be expected to be, if anything, even more concerned that Federal environmental standards are

met than would the more remote Federal bureaucrats in Washington, D.C., who are less directly affected by the regulations that they write.

In addition, of course, the Federal Government, in exercising its oversight authority under the act, has the clear responsibility to assure that Federal environmental standards are adhered to by the States.

Mr. President, today we are considering a synthetic fuel bill which will call for the use of coal or coal byproducts as the primary source of feed stock. Any amendment which will help to facilitate the increased production of coal in compliance with the environmental laws of this country is surely in the best interest of this program and the Nation.

In the hearings and meetings that I have attended and held in the Senate and in my own State of Virginia, respectively, I have heard many stories of overregulation by Federal reclamation officials—actions which have increased the cost of coal, decreased the production of coal, and forced the layoff of thousands of coalfield workers.

My State of Virginia currently has some 2,000 miners out of work in its coalfields—roughly 10 percent of Virginia's coalfield work force. The distinguished majority leader's home State of West Virginia has some 9,000 workers currently unemployed in its coalfields. Other coal-producing States are similarly affected.

I find it incredible, Mr. President, that at this very moment—as this body is debating synfuels legislation, as our President is calling for increased coal production, as we are facing massive unemployment in the coalfields—at this very moment, our Nation is importing foreign coal and foreign coke/coal to be utilized by our domestic utilities and industries because it is so inexpensive.

However, one of the major reasons that our Nation's domestically produced coal is more expensive than the foreign product is because of the multiplicity of our own governmental regulations. My amendment—which, I repeat, would not harm the environment, and would merely allow the States to implement their own plans according to their own individual circumstances—would help to do away with unnecessary regulation. Thus, it would help to lower the price of our domestic coal, making it more competitive in today's markets, and in turn increase employment in our Nation's coalfields.

I ask unanimous consent that there be inserted in the Record, at the conclusion of these remarks, an article which appeared in the Bluefield, W. Va. Daily Telegraph dated October 26, 1979. It points out that complying with Federal regulations will cost one major coal company \$1.7 billion over the next 11 years.

The PRESIDING OFFICER. Without objection it is so ordered.

(See exhibit 1.)

Mr. WARNER. This is an enormous price to pay—particularly when, as it appears, it is not really necessary to expend such sums in order to comply with the basic intent of Federal environmental laws.

Mr. President, I would note that, on October 3, 1979, subsequent to Senate passage of S. 1403, the Southern Governors Association unanimously passed a resolution on "National Coal Policy," endorsing the proposals embodied in S. 1403. I ask unanimous consent that the text of this resolution be printed at the end of my remarks.

The PRESIDING OFFICER. Without objection it is so ordered.

(See exhibit 2.)

Mr. President, I believe that I have shown that my amendment will not harm the environment, will offer the States the flexibility to produce coal according to their individual conditions in keeping with the intent of Congress, will help provide the increased feed stocks necessary for a synfuels program such as we are considering today, will reduce coal field unemployment, and will promote a stronger, healthier coal industry in the United States.

For these reasons, I invite my colleagues to join with me in reiterating the Senate's continued and overwhelming support of this needed legislation.

Now, Mr. President, as an act of courtesy, I yield to the distinguished Senator from Ohio (Mr. Metzenbaum), who has asked that I yield to him before I proceed further.

EXHIBIT 1

GUESS WHO WILL PAY?

Consolidation Coal Co. has spent a lot of time and money on a study designed to demonstrate that the federal Office of Surface Mining has developed a nightmarishly complicated regulatory program which is going to cost all of us dearly. The study clearly demonstrates exactly that.

The Consol study involved thousands of man-hours of analysis of just 21 of the hundreds of regulations developed by OSM. The conclusion backed by a draft of statistics, is that these 21 regulations over the next 11 years (1980 through 1990) will add an astonishing \$2.7 billion to the cost of coal produced by Consol under the regulations. That additional money will be paid not by Consol in the long run, of course, but by the consumers of the coal Consol produces, assuming they can afford to buy coal at the price it will be necessary to charge for it.

The study also demonstrated, to the satisfaction of the scientists and technicians, at least, that every objective of the federal surface mining law could be achieved at a cost to Consol of just \$1 billion over the same period, by using standard "good engineering practices." The difference between the two figures, \$1.7 billion, is created by the manner in which OSM propounded rigid, inflexible regulations to carry out the law. Consol maintains that the study proves that this \$1.7 billion expenditure is "unnecessary, unjustified and inflationary."

The figures Consol cites, applying only to its own operations are horrifying enough. We are then led to consider, since Consol produces only 8 percent of the nation's coal output, what the OCM regulatory burden will add to the U.S. coal industry as a whole.

The Consol study takes that into account. It says the industry-wide cost of complying with the same 21 OSM regulations over the next 11 years will be \$34.8 billion, of which at least \$22.1 billion is totally unnecessary to comply with the requirements of Congress, but will have to be spent to satisfy demands of the OSM regulation-makers.

All of us should understand that this, really is more important to the rest of us than it is to Consol, which, as the energy crunch steadily worsens in coming years, will be able to sell its coal at any price. Those of us who consume coal-produced energy, meaning practically all of us, are going to be the ones who will have to fork over the unnecessary \$22 billion, and probably a good bit more, to satisfy the OSM regulators. It is going to be an unavoidable part of the cost of mining coal.

What is even more galling is that we also are going to have to continue to pay the additional millions and billions necessary to keep thousands of federal regulators in business, busily enforcing old regulations and inventing new ones which will cost us still more. This is just one of the vicious circles created by the increasing federal presence in every area of the nation's life.

Consol is asking both Congress and President Carter to consider its study and correct the problem before too many more billions of coal dollars are wasted. We doubt that the company is very optimistic about the outcome of its plea, but it is to be commended for making the effort, at least.

EXHIBIT 2

NATIONAL COAL POLICY

Whereas, the nation's coal industry today suffers from massive unemployment and underutilized production capabilities of well over one hundred million tons; and

Whereas, since the 1973 oil embargo coal consumption has increased at a rate of only two percent per year while oil imports have increased almost eight percent per year; and

Whereas, electric utilities and large industrial users of oil and natural gas have not been able to convert to coal because of unduly restrictive federal regulatory policies; and

Whereas, the cost of producing coal is unnecessarily increased by wholly unnecessary and inflexible surface mining regulations; and

Whereas, the states, in order to permit conversions to coal in the public interest and in order to reduce the cost of production of coal, believe that the present inflexibility in administering both the Federal Surface Mining Act and the Federal Clean Air Act must be altered in order to permit the states the flexibility to achieve these mandated statutory goals by more flexible state regulation; and

Whereas, the goals can be achieved without environmental degradation because the Clean Air Act Amendments will maintain federally mandated health standards and the Surface Mining Act Amendments will require that the Federal Surface Mining Act be fully implemented in accordance with the statute.

Now, therefore, be it resolved that the Southern Governors in convention assembled support and endorse bills designed to amend the Clean Air Act to permit greater flexibility in enforcing the state implementation plans; and also endorse and support the legislation which will permit the states greater flexibility in implementing the Federal Surface Mining Act; we also urge the President and his Administration to support the enactment of such bills.

Alabama, Arkansas, Delaware, Florida, Georgia, Kentucky, Louisiana, Maryland, Mississippi, Missouri, North Carolina, Oklahoma, Puerto Rico, South Carolina, Tennessee, Texas, Virgin Islands, West Virginia.

Mr. METZENBAUM. Mr. President, I know that the Senator from Virginia has prepared to offer and has offered this amendment having to do with vitiating the impact of the strip mining laws that were passed by the last Congress, in the previous session. I know that the Senator from Virginia feels very strongly with respect to the merits of making that change, along the lines of an amendment heretofore considered by the Senate and passed by the Senate.

I have indicated to the Senator from Virginia that I believe this is not the right place to add this amendment, that I think it is the wrong bill to add it to, that I think that the issue of strip mining is a subject that Senators did not fully appreciate and consider when they first acted on this legislation, and I further indicated to my good friend from Virginia that I am prepared to spend an extended period of time discussing and explaining the negative aspects of this proposed amendment. As a matter of fact, I have on my desk here a considerable amount of material that I had hoped to make available to Members of the Senate, in order to edify them concerning the issues.

I now yield to my friend from Virginia.

Mr. WARNER. I thank the distinguished Senator from Ohio.

Mr. President, I take issue with the statement that this is not the right place for this particular piece of legislation. It is legislation that has previously been before the Senate and fully debated, and the Senate has, I might say, almost overwhelmingly, by a 69 to 26 vote, adopted it not more than a few weeks ago. The Senate has fully considered it, and has expressed its will; but our distinguished colleague from Ohio has made it clear that he is prepared tonight to initiate a filibuster.

Therefore, after consultation with my colleagues and the managers of the legislation on the floor, I have decided, together with my cosponsor, the Senator from West Virginia (Mr. Robert C. Byrd), to withdraw this amendment.

However, in so doing, I wish to advise the Senator from Ohio that I accept his challenge. At a future date, filibuster or no filibuster, to pursue this matter and to let the Senate exercise its will. This is a matter which, in our judgment, unfairly handicaps many miners across the country, particularly the Eastern part of the United States, who will be or are losing their jobs at the very time that the United States needs the coal which their hands are ready and willing to produce.

I assure my colleagues that my cosponsor, Senator Robert C. Byrd, and I will soon select another piece of legislation to which we will attach S. 1403, which is the legislation passed by this body not long ago, and that we will welcome the opportunity to meet the Senator from Ohio (Mr. Metzenbaum) head-on and let the Senate exercise its will.

Mr. METZENBAUM. Mr. President, I am very pleased to learn that the distinguished Senator from Virginia is going to take down his amendment. I understand his desire to bring it up at a later date.

I do want to say that, heaven forbid, I would never think of participating in a filibuster; but I did think that the Senate was entitled to learn all about the lack of merit of this proposed amendment, and thought it might take me more than a little while to explain it. But I certainly would not think of using a filibuster to resist the efforts of my friend from Virginia.

However, since he is taking it down, we will not quibble about the terminology.

Mr. WARNER. Well, Mr. President, in colloquy in the cloakroom it was made clear to me that it would require the Senator from Ohio and his distinguished colleagues the better part of tonight, well into tomorrow, and perhaps through Saturday in which to acquaint me with the merits of his position. In the light of that and the importance of this legislation, and in deference to my colleagues who have worked so hard to get this legislation to its present point, which I hope will result in its adoption later tonight, and my willingness to take this matter up at a very early opportunity henceforth, the merits being balanced, I feel that I should go ahead and withdraw this amendment.

The PRESIDING OFFICER. The amendment is withdrawn.

The question is on agreeing to the amendment (UP No. 759) of the Senator from Kansas.

The Senator from Kansas is recognized.

UP AMENDMENT NO. 759

Mr. DOLE. Mr. President, I yield to the distinguished Senator from Maine, the chairman of the Budget Committee.

Mr. MUSKIE. Mr. President, I think that the problem which I feared might exist with respect to the Dole amendment is not a problem from the budget point of view.

I would simply like to say this for the record, so that the Senate may understand why I was interested in making the record on what I thought might be a budget problem. Both the Senate and House

Budget Committees, after carefully looking into the SPRO program in our separate markups, concluded that the likelihood of making substantial progress on meeting the objectives of that program were pretty dim in fiscal year 1980.

So, without making any policy judgment, simply anticipating how much might be spent, given the progress or lack of progress in the program up to date, both committees reduced the amount allocated to this program below what had been the traditional levels.

As a matter of fact, both Houses called for a \$1 billion rescission of the available \$2.6 billion. And even assuming the \$1 billion rescission, a rapid calculation of the cost of implementing the Dole amendment suggests that it would come within the \$1.6 billion that is available. That being the case, it is not my prerogative, as Budget Committee chairman, to challenge the Senate's decision on the policy question that is involved. I simply wanted to be sure that we stayed within the budget constraints.

It seems to me that even if the administration has to turn to the spot market, there is enough flexibility in the Dole amendment to permit the administration to live within the amount allocated by the budget resolution.

I thank the distinguished Senator from Kansas for his patience in permitting me to get to the facts. I hope the facts are helpful to him and the other Members of the Senate.

Mr. DOLE. I thank the distinguished Senator from Maine. I would say that it is helpful to the Senate, and we do have an obligation in the Senate, certainly the Budget Committee has an obligation, to take a look at everything that is offered on this floor. So I think it improves the record. It indicates that there are no budget problems. And I think the Senator from New Jersey shares that view. We thank our colleague for raising the question.

Now, we can vote.

The PRESIDING OFFICER (Mr. Metzenbaum). The question is on agreeing to the amendment of the Senator from Kansas.

The amendment (UP No. 759) was agreed to.

Mr. DOLE. Mr. President, I move to reconsider the vote by which the amendment was agreed to.

Mr. McCLURE. I move to lay that motion on the table.

The motion to lay on the table was agreed to.

The PRESIDING OFFICER. The question now recurs on the amendment of the Senator from West Virginia.

Mr. JAVITS. Mr. President, I ask unanimous consent, if it is agreeable to the managers, that that amendment be temporarily laid aside so I may call up an amendment.

The PRESIDING OFFICER. Is there objection? Without objection, it is so ordered.

UP AMENDMENT NO. 768

(Purpose: To revise provisions relating to energy conservation improvements)

Mr. JAVITS. Mr. President, I send an amendment to the desk and ask for its immediate consideration, an amendment on behalf of myself and Senators Moynihan, Williams, Ribicoff, Durkin, and Melcher.

The PRESIDING OFFICER (Mr. Metzenbaum). The amendment will be stated.

The assistant legislative clerk read as follows:

The Senator from New York (Mr. Javits) for himself and Mr. Moynihan, Mr. Williams, Mr. Ribicoff, Mr. Durkin, and Mr. Melcher, proposes an unprinted amendment numbered 768.

Mr. JAVITS. Mr. President, I ask unanimous consent to dispense with further reading of the amendment.

The PRESIDING OFFICER. Without objection, it is so ordered.

The amendment is as follows:

On page 220, between lines 2 and 3, insert the following:

(d) (1) The Bank may subsidize loans upon application by owners or lessees pursuant to cooperative agreements between such owners and one or more lessees to finance energy conservation measures in a residential building which agreements may include sharing of costs and benefits of such measures, between such owner and lessee.

(2) The Secretary may promulgate, for use by participating lending institutions, a model contract which provides for owners and lessees to enter into an agreement for the owner to share in the costs of conservation measures by either—

(1) reducing lessees' rent if the energy conserved is paid as an undesignated part of the rent; or

(2) reimbursing the lessees at a future time or when the lessees vacate the unit for the value of installed conservation measures.

Mr. JAVITS. Mr. President, this amendment goes with two other amendments, and I would like to ask unanimous consent—though I am not asking it at this minute, I will—that they be considered en bloc when I explain what I have in mind because it is a logical way to approach this and will save the Senate a lot of time.

Mr. President, I propose these three amendments only because they go to different subsections of the same part of the bill. These subsections relate to subsidized loans and grants. The purpose of my amendments which, as I say, are individual amendments because they go to different sections of the same title of the bill, is to bring into the conservation programs of the bill multifamily dwellings over and above the minimum number which is specified in the bill for the purpose of conservation assistance. That is my purpose.

I believe the managers of the bill have copies of my amendment. My office tells me that many copies have been made available, but I apologize if the managers have not actually received them.

Mr. FORD. Will the Senator yield? I do not seem to have a copy.

Mr. JAVITS. We will have more made. This will probably be debated for a little while.

I might say to the managers whenever they are ready to look them over, if they will let me have the amendments considered en bloc—

Mr. McCLURE. Will the Senator reserve that request until we have had a chance to look at them?

Mr. JAVITS. Of course.

Mr. President, the reason I raise this issue is because it is a big issue. The fact is that multifamily dwellings were included in the Banking Committee's bill. I voted with the Energy Committee on the synfuels matter. I knew what I was doing because, after all, we have to keep our eye on the main point. I believe that the Energy Committee's approach to the whole production proposition was much more advisable in the interests of the country. But the amendment process is intended to enable us to raise just such issues as I propose to raise. The issue has to be raised, Mr. President.

One-third of American families live in dwelling units which are multifamily; hence, it would be out of the question just to pass them by.

The figures show that there are some 67.5 million aggregate number of family units who occupy separate quarters. The total rental units out of that total of 67.5 million, is 23.5 million.

Under the provisions of the bill relating to 4-family units which are allowed into the scheme of the bill for subsidized loans, and 8-family units, which are allowed into the bill for grants, that amounts to 2,283,000 units of renter-occupied. So that is 10 percent of the total renter-occupied units. Hence, Mr. President—

Mr. FORD. Mr. President, could we have order?

The PRESIDING OFFICER. Will Senators please return to their seats or retire to the cloakroom for their conversations?

The Senator from New York.

Mr. JAVITS. So, Mr. President, this involves the exclusion of 21.25 million units from any benefit respecting conservation. That, Mr. President, is a pretty big slice. It is almost one-third of the total. The number of renters allowed to benefit by the bill is not very great. That is a pretty big slice of American families that are excluded. It certainly deserves consideration and a vote by the Senate.

As is generally true around here, you have to have an interest to take something on. We certainly have an interest in New York. That is, we have just about one-third of our families housed in these excluded units. But also, Mr. President, it is not an exclusive New York interest. Indeed, the District of Columbia has more renter-occupied units than the State of New York, and the average throughout the United States, Mr. President, is that 13 percent of all multifamily buildings have more than four units. Hence it becomes a very major and appreciable problem.

To give the situation in the bill first and also what the Banking Committee did, with both factors being necessary to understand the situation, I state the following: This bill provides that renter-occupied units, which would include condominiums and co-ops of four or less, may have the benefit of subsidized loans for conservation purposes, and that renter-occupied units of eight or less may have the benefit of grants. The criteria are that for loans the family or rental units may not have an income of more than \$40,000 per year, in round figures, and for grants such a family may not have an income of more than \$16,000 a year.

The Banking Committee in its provision deals solely with the category of subsidized loans and did not deal with grants at all, but it admitted for subsidized loans all rental units.

Of course, that takes, as I said, 21¼ million new units, which is a big slice of this whole question.

Mr. President, it is very interesting to me that some of our States which are not big States have very heavy interest in a matter of this kind. For example, Colorado has 13 percent of its rental housing units with more than four units. Interestingly enough, aside from the great big States, Hawaii has about 19 percent of its units in this status. Maryland has 17.5 percent; Massachusetts has 15 percent. Nevada, a relatively sparsely settled State, has 14 percent. New Jersey, for example,

has 17 percent. Those are States which are hardly identified with the kind of problem I have described.

Now, what does my amendment seek to do? It would, first, make tenants in the larger apartment buildings eligible for subsidized loans and Federal grants for apartment alterations for energy conservation. These, of course, are excluded by the bill, for subsidized loans, to families living in multifamily units over four and for grants to those living in multifamily units over eight.

So, point one, it would make these tenants in the multifamily buildings eligible. Two, it would remove the requirement that tenants must pay their own heating bills to qualify for, clearly, only tenants who can save money will spend money. As the grant is a matching grant, a tenant has to spend if he is going to get something out of it. As the subsidized loan first has to be made by a bank, which has to have assurance of getting its money back because the subsidization is only for interest over 6 percent, we can assume that the banks will only make loans that they consider sound. So these are self-operative protections.

The second thing, we do not have to require separate meters to be installed in buildings which, in many cities, including my own New York City, have as many as 100 apartments. It would, first, be impractical and, second, highly unlikely that any such thing would be done. But we can rely upon the fact that either the tenant will find it worthwhile or, by arrangements with his landlord, as are contained and carried in my amendment, a deal will be made which will be worthwhile for the purpose of installing conservation measures.

Finally, my amendments would make an apartment building owner eligible for subsidized loans of \$2,000 per unit for energy conservation improvements up to a ceiling of \$250,000 per building.

Mr. President, the real points that my amendment makes are: One, shall those who happen to live in large multifamily buildings be excluded from the benefits of the law? That seems to me to be discriminatory, unless there is some very good reason for it. But that is the situation which I think we face.

Second, Mr. President, are we engaged in a social exercise to benefit only a certain class of American, or are we engaged in trying to save oil and other forms of energy because we wish to encourage, by subsidy and subsidized loans, conservation and conservation practices?

The figures, Mr. President, are very large. We are losing a lot of energy by the failure to give adequate incentives to those who happen to live in apartments. We have available—Members are invited to look at it—a Department of Energy study made in May 1979 on conservation in multifamily dwellings. According to that study, the equivalent of 4.4 million barrels of oil per day—that is one-quarter, roughly, or close to one-quarter of the total consumption of the United States in oil—is used in these multifamily buildings. So this is not a conservation objective which we ought to kick away.

Much of that 4.4 million barrels per day is residual fuel oil, of which 80 percent is imported at a cost of \$25 per barrel. The Department of Energy study indicates, Mr. President, that there can be a saving. The target saving could be 30 percent of that oil. So, Mr. President, we are talking about a saving, if it is fully used, of 1,200,000 barrels, the equivalent of 1,200,000 barrels of oil per day if we do something intelligent about this situation.

Finally, Mr. President, I understand from my staff, which has done a very careful and effective job in this matter, that a question arose in the debate in the Energy Committee, which considered this matter, as to what could be done to conserve energy in this type of building. Fortunately, we have received, as part of this Department of Energy study, which is very recent—May 1979—a list which was an exhibit in that study of what can be done.

Mr. JAVIRS. Mr. President, I should like to give the headings to indicate its relevance: "Space Heating Energy Conservation Measures," which include boiler and furnace efficiency improvements, improvements through controls, thermostats, valves, and so forth; insulation; the reduction of the admission of outside air; and building envelope thermal performance improvements, which includes caulking and weather stripping, attic-roof insulation, storm windows, and an increase in winter solar gain.

The next heading is "Domestic Water Heating Conservation Measures." That includes various types of insulation as well as reduction of the temperature of domestic water heating, faucet flow reducers, and so forth.

The next heading is "Lighting Energy Conservation Measures." That includes reduction of lamp wattage, installation of timers on exterior lighting, converting incandescent to fluorescent lighting.

Mr. President, talking about the installation of timers on exterior lighting, who has not been appalled by the glowing buildings at night as one flies over any big city? We are talking about saving energy and cutting out imports and they are ablaze with light, most often because the cleaning ladies may not turn off the lights or because the landlord thinks it is great, or for whatever reason. But there it is. So, Mr. President, a lot can be done which is not being done today.

The next heading is "Space Cooling Energy Conservation Measures." The last is "Behavioral Measures;" for example, conversion to individual metering for electricity and the possibility, where it is possible—I dealt with that a minute ago—of decentralizing heating, cooling, and domestic water heating systems, as well as an energy cost indicator to give a reading on exactly what is used in terms of energy.

Mr. President, there is plenty of room for action in this matter, plenty of room for inducements and incentives, just as for individual owners, they can do a lot which we are just letting go by the board.

Mr. President, now I come to my final point. I do not think this issue can be passed over. I talked with the managers of the bill, publicly as well as privately. I do not know what can feasibly be worked out. But I do not see how we can pass an energy conservation bill and simply strike out one-third of the housing units of the United States which are using such a large volume of oil equivalent, and just forget about it.

Mr. President, I just do not see how we can do that.

I would be very sympathetic to whatever the managers feel they could do about working out a system which will give this enormous constituency some kind of recognition. But to just leave it out completely is not the way we ought to operate. I do not think that is the way our country would feel.

There are too many people and too many units involved.

So if my particular approach has some difficulties or bugs the managers do not like, I do not think that is any reason for defeating it.

I think this is something we have to do. We have to find some way of accommodating this constituency which is absolutely blocked out and omitted, from this whole bill.

I do not believe that is just, or right, or the way in which it is our legislative purpose to legislate.

For all those reasons, Mr. President, I hope the Senate will look with favor on this amendment.

Now, Mr. President, may I inquire of the managers whether I may submit the rest of my amendments which I have explained and ask if all be considered en bloc so we may have one vote?

Mr. JOHNSTON. Mr. President, I would be willing to have it submitted en bloc.

I would have to oppose the amendment, but I will certainly not oppose having it submitted en bloc.

Mr. McCLURE. Mr. President, let me suggest, the same way, that have no objection to it being submitted en bloc.

UP AMENDMENT NO. 769

(Purpose: To remove the limitation on the number of units contained in residential building for the purposes of loans and grants)

Mr. JAVITS. Mr. President, I send it to the desk.

The PRESIDING OFFICER. The amendment will be stated.

The assistant legislative clerk read as follows:

The Senator from New York (Mr. Javits) proposes an unprinted amendment numbered 769, en bloc.

Mr. JAVITS. Mr. President, I ask unanimous consent that further reading of the amendment be dispensed with.

The PRESIDING OFFICER. Without objection, it is so ordered.

The amendment is as follows:

On page 217, line 7, insert "other" after "any".

On page 217, lines 8 and 9, strike "which contains two, three, or four units"

On page 217, line 8, insert "(not to exceed \$250,000 per building loan)" after "a building".

On page 217, strike lines 14 through 20.

On page 217, line 21, strike "(7)" and substitute "(5)".

On page 218, line 4, strike ";" and substitute ", unless the loan is made to owner of a residential building of 5 or more units for improvements in buildings".

On page 218, line 5, strike "(8)" and substitute "(6)".

On page 218, strike lines 9 through 20.

On page 218, line 21, strike "(10)" and substitute "(7)".

On page 219, line 3, strike "(11)" and substitute "(8)".

On page 219, line 5, strike "(12)" and substitute "(9)".

On page 219, line 9, strike "(13)" and substitute "(10)".

On page 231, line 17, insert "and" after the semicolon.

On page 231, lines 19 and 20, strike "two, three, or four units" and substitute "more than one unit".

On page 231, line 22 strike "expenditures; and" and substitute "expend"

On page 231, strike lines 23 through 25.

On page 232, insert a colon at the end of line 1, and strike lines 2 through

On page 232, lines 17 and 18, strike "not more than eight units and".

On page 232, strike lines 22 through 24.

On page 233, lines 14 and 15, strike "containing not more than four units".

Mr. JAVITS. Mr. President, I ask unanimous consent the three amendments may be considered en bloc.

The PRESIDING OFFICER. Is there objection?

Without objection, it is so ordered.

Mr. JAVITS. I thank the Chair.

The PRESIDING OFFICER. The Senator from Louisiana.

Mr. JOHNSTON. Mr. President, the Committee on Energy and Natural Resources gave great time and attention in the markup, as well as in the hearing part of our deliberations, to the question of how to apply the amount of dollars we had with respect to energy conservation.

I am somewhat embarrassed to tell the Senator how many dollars we have in this bill for energy conservation. It is \$6.295 billion for energy conservation.

So, Mr. President, please let no one accuse our committee of being stingy, of being niggardly, with the conservation dollar. We have been very generous and, for good reason, Mr. President. We think that there is good reason to believe that energy conservation can pay off in real terms to this country, and saving energy on a cost-effective basis.

However, Mr. President, we had to determine how to maximize the payoff from energy conservation.

Our first consideration, Mr. President, was, What is the ability of the conservation, particularly the insulation market, to service the amount of dollars we were willing to put into the conservation effort?

We found, Mr. President, that at present the insulation market is operating at an average of 85 percent capacity. At certain times of the year, because insulation is so much a seasonal program, it is operating above 95 percent.

So that almost every dollar we add on of the \$6.295 billion will have to come out of incremental capacity not now existing, which must be added to the insulation base.

Now, that is not bad. We want the insulation business in this country to expand. But it highlights the fact, Mr. President, that there is not enough to go around right now.

So that to the extent that we apply money to the vendors, as described in the Javits amendment, we take it away from that which we have already provided for.

Now, what did the Senate Energy Committee do, Mr. President? It provided loans and grants to individuals who own their own homes, with an income limit of \$40,000 apiece, to businesses with \$1 million in annual gross sales, loans of up to \$2,500 for detached buildings, of \$2,000 for two- to four-unit buildings, and \$50,000 for commercial buildings.

Mr. President, these are generous loans for individual buildings as well as for commercial buildings.

With respect to the grants, Mr. President, we provided that they could be made to individuals who made not more than the national median income because, after all, Mr. President, we are going to be taking money from poor taxpayers in this country—indeed, all taxpayers, including poor taxpayers—and redistributing that income to others.

To the extent we redistribute that income, albeit for the worthy purpose of conservation, we did not want that money to go to those who are already better off than average.

So we put a limit on that of not more than the national median average income.

We also provided that where a renter is a grantee of a grant, that he must pay the fuel bill, because we wanted the grant to go to the person who is responsible for the bill; that is, the renter.

We were also generous with those over 65 by giving them 150 percent of the grants provided for others.

Having dealt generously with those classes of people, and having provided for renters of four units or less, we then considered, Mr. President, whether the owner of a high-rise apartment should be able to get a grant on that high-rise building.

We specifically, and I think, if I recall, unanimously, or close to unanimously, rejected making the owners of high-rise apartments eligible for these grants. The reasons were several.

First, a high-rise building is not nearly as good a candidate for energy conservation as are detached buildings. With detached buildings, one can insulate walls and ceilings, apply insulation around the doors, and that kind of thing, whereas with a high-rise building, the individual renter only has access to the outside from his outside wall. It hardly does any good to insulate between the other walls. There is very little opportunity to insulate a high-rise building.

Second, Mr. President, we were concerned that the opportunity for what would amount to, if not fraud, then perhaps skirting on the edge of the intent of this bill, by making grants to owners of high-rise apartments for such things as thermal curtains, which involve very little more than paying for a redecoration of the apartment-owner's premises. A redecoration under the guise of energy conservation, with taxpayers' dollars, is something we do not want to do.

Third, we were concerned with the problem of rich apartment owners being eligible for grants made up from taxes collected from across-the-income spectrum, including the poor people, as I mentioned earlier.

In the Javits amendment, as I understand it, there is no income limitation for the owner of an apartment, is that correct?

Mr. JAVITS. Mr. President, will the Senator yield?

Mr. JOHNSTON. I yield.

Mr. JAVITS. On grants, there are. There is the median income level which is in the bill. In other words, you cannot get a grant unless your income is below the median level.

Mr. JOHNSTON. Is there a grant availability for the owner of the apartment?

Mr. JAVITS. If he has a median-level income of less than \$16,000, he is hardly a rich landlord.

Mr. JOHNSTON. Does he need the renters consent to get the grant?

Mr. JAVITS. They have to make a contract with him as to what it is going to be used for, and so forth. Remember, they have to match a grant 50-50.

You can do that with a single-family dwelling. You can make a deal with somebody to repair a lot of houses.

Mr. JOHNSTON. But there is no income limit with respect to loans.

Mr. JAVITS. There is no income limit with respect to loans, on the subsidization of the loans.

I want to explain. We thought the limit was so high, anyhow—\$40,000—that it is the old story: It just is not worth winnowing beyond that, so we eliminated it.

Mr. JOHNSTON. Mr. President, I know what the distinguished Senator from New York wants to do, and we certainly are more than sym-

pathetic. We are enthusiastic about energy conservation in our committee; but we simply do not think that a subsidized loan to a very wealthy apartment owner is a proper expenditure of funds, particularly when we are clawing and scrambling to try to find every dollar we can to apply in the place where it will do the most good.

For those three reasons, Mr. President, these dollars will not do the most good in apartment buildings: Because there are not many opportunities for making savings, because there is limited availability of insulation materials, because this violates a principle of not giving money to those who are wealthy. For the reasons I have stated, we would have to oppose this amendment.

I also point out that if we went this route and approved the Javits amendment, it simply would make less available to individual homeowners who are below the median income and to apartment renters in four units or less who are below the income level, namely those who are helped under our bill.

It would be taking money away from them, taking available insulation away from them, and giving it to those who are less worthy in terms of ability to save energy and who are considerably higher up on the income scale.

Does the Senator want a record vote on this matter?

Mr. JAVITS. Yes.

Mr. JOHNSTON. Mr. President, if the Senator is ready for the vote, and I hope he is—is the Senator ready for the vote?

Mr. JAVITS. I have to answer a good many things the Senator from Louisiana has said. It is late, and I do not want to keep Members here all night. So far as I am concerned, I can finish within 15 minutes.

Should the leader wish to limit our time now, I am perfectly willing to do anything reasonable on that.

Mr. ROBERT C. BYRD. Mr. President, I ask unanimous consent that a vote in relation to the amendment occur no later than 8 p.m.

The PRESIDING OFFICER. Without objection, it is so ordered.

Mr. JAVITS. I will take 10 minutes, and the Senator from Louisiana can have 5, if he wishes.

Mr. President, with all the goodwill in the world, there are a good many fallacies in the argument made against this amendment. In the first place, there is the fallacy of bulk. You cannot argue that one-third of the American people are so rich that they do not need any help for conservation. No matter what else you might think, it is not so. It cannot be so.

In addition, how can you talk about not dealing with the wealthy, when this bill provides that you can get a subsidized loan if your income is under \$40,000 a year. That is not a bad income in most places in the United States.

That is just confined, however, to individual property owners and to occupiers of multifamily units of less than four. Why not 8, 10, 12, 14, or 19, if it can save energy? I do not see it.

In addition, the argument absolutely fails to take account of the only authoritative study that has been made, that of the Department of Energy, which finds that 30 percent of the oil equivalent used in these very buildings we are talking about can be saved. That is not an argument on the Senate floor. That is an authoritative finding of a possible saving of 1.2 million barrels a day—the biggest single saving I

have heard talked about here in this whole debate—found by the Department of Energy as possible in this situation.

Finally, Mr. President, we settled the matter of grants. A grant can only go, under my amendment, to an owner or a renter who has less than the median income. There is no other way. Remember, a grant must be matched; so that these people are not out of their right minds if they want to make a contract with their landlord to match and use the grant for conservation purposes. They should have the same right to do it as any other grantee who lives in a multifamily structure which has less than nine units. That is permitted under this bill, but it is not permitted if you live in a multifamily unit of more than eight units, and I think that is unfair.

The argument is made that the payer of the bill—to wit, the renter who pays the heat bill or the light bill—should be the only one benefited. Why? He pays just the same in his rent or in his maintenance for his condominium or for his co-op. Why should he be discriminated against simply because he pays money for heat and light in a different way, or he pays to the utility company in the case of light?

So, Mr. President, I do not believe that that is a proper argument against this bill.

The argument is made that we are taking money away from them. What that argument means, just turned around, is that we are giving money to others—only a certain section of the population belonging to the other section—just because one set of people happens to live in housing circumstances which are different. A multifamily building can be right next to a four-family building or an eight-family building, right next door, and not get help. But the eight-family and the four-family do get it. It can be on the same street, in the same location, with the same class of people, right next door. One gets it; the other does not.

Mr. President, let us remember this also: More and more, these buildings around the country which are multifamily structures are being converted to condominiums and to co-ops. The reason for their conversion is that they are not making money. Therefore, let alone conservation, they are not being maintained adequately. That is one of our big problems, for example, in the operation of buildings. Here is an opportunity for a cooperative tenant-landlord effort to maintain buildings.

Mr. President, we have just had on this floor the increase of the conservation bank by about \$1 billion. The amendment by Senator Tson-gas increases the conservation bank by \$950 million.

If there is to be a reason for that increase that is a mighty good reason: instead of distributing more to those who are already getting it, to let in those who are not considered by this bill at all.

This involves a very large number of people. I wish to again, because I think it is so critically important, refer to these figures of the number of people who are involved. Twenty-one-and-a-quarter million family units, out of a total of 67 million family units in the United States; one-third of the client population is excluded.

Finally, and very importantly, we talk about giving to those who have. I have already dealt with those arguments. But it seems to me that is the crowning blow of all. Listen to who is benefited under this bill: Producers of gasohol, renewable resource equipment, coal, oil

shale, stripper oil, tertiary recovery oil, geothermal heat, and of course small refineries.

Mr. President, are those the poor of our country, the underprivileged, those who need help in this bill as if they were welfare cases? Of course that is not true, and there are millions of people among the 21 million whom I have named who are far more deserving, if you are going to put it on that basis.

Mr. President, let us remember this is an energy conservation bill, not an effort to readjust the society or the incomes of the United States. We want conservation and in addition, as to this argument of insulation, in a multifamily dwelling the least amount of insulation is used because it is used essentially for the exterior facing.

I have put into the Record and read and I refer again to the many things which can be done in conservation if these people get some break as do the others who are covered by the bill under the terms of this bill.

Let me go over it again: Space heating energy conservation measures, boiler and furnace efficiency, controls improvements dealing with thermostats and valves, et cetera; insulation for piping and ductwork, which handles the distribution of heat and hot water in a building; building envelope thermal performance improvements, including caulking and weatherstripping, attic/roof insulation, storm windows, and winter solar gain. The next heating is domestic water heating conservation measures, everything that has to do with domestic water heating, including the temperature, the timers on the recirculation pumps, faucet flow reducers, et cetera; lighting energy conservation measures, which include reduction of lamp wattage and what I emphasized when I made my argument in chief, the installation of timers on exterior lighting, which is a very, very important manifestation of how we waste energy today. Space cooling energy conservation measures of all kinds, including equipment and control improvements.

Finally, individual metering, and decentralizing the costs of payment for heating, cooling, and domestic water heating systems.

It seems to me that having heard the arguments in opposition we have not had a rational explanation for why one-third of the American people should be excluded from these conservation measures in which I thoroughly believe, especially when it can be done efficiently and when there is a relationship between the recipient and what he gets based upon his own performance as, for example, in grants where there has to be a 50-50 matching and in loans where a liability has to be undertaken a lender and the only thing that the Federal Government is subsidizing is the interest.

Mr. President, for all of those reasons I deeply believe that as a matter of elementary justice the Senate should approve this amendment.

Mr. President, I ask unanimous consent that excerpts from the DOE study I have cited appear in the Record following my remarks. I reserve the balance of my time.

There being no objection, the list was ordered to be printed in the Record, as follows:

STRUCTURAL AND ENERGY CONTROL MEASURES POTENTIALLY APPLICABLE TO EXISTING APARTMENTS

Space Heating Energy Conservation Measures:
Boiler/furnace efficiency improvements.

Control improvements: high temperature limit thermostats, thermostatic radiator valves, clock thermostats, energy monitoring and control systems.

Insulate distribution piping and ductwork.

Reduce excess outside air.*

Building envelope thermal performance improvements: caulking and weather stripping, attic/roof insulation, storm windows, increase winter solar gain.

Equipment conversion from electric to fossil fuel (may save primary energy).

Domestic Water Heating Conservation Measures:

Insulate DHW tank and distribution piping.

Reduce DHW temperature.*

Timer or DHW recirculation pump.*

Faucet flow reducers.

Solar energy.*

Lighting Energy Conservation Measures:

Reduction of lamp wattage.

Installation of timers on exterior lighting.

Convert incandescent to fluorescent lighting.

Space Cooling Energy Conservation Measures:

Install shading devices to avoid solar gain in summer.

Use light color when repainting facades and replacing roofs.

Equipment efficiency improvements.

Controls improvements.

Behavioral Measures:

Convert to individual metering for electricity and decentralized heating, cooling, and DHW systems.

Energy cost indicator (feedback meter) for individually metered units.

Appropriate measures differ from building to building.

Not all of the measures shown in Exhibit E-1 will be applicable to any specific building, and not all applicable measures will be cost-effective to the apartment owner or tenant.

1. Applicability of Measures to a Specific Building Is Determined by:

Location—which determines climatic conditions and applicable building codes.

Type and condition of energy using systems including heating, hot water, cooling, lighting, and related control systems.

Construction and condition of the building envelope including thermal insulation, air leakage, and fenestration.

Conservation measures already existing which may reduce the need for, or performance of, other possible measures.

2. Cost-Effectiveness of Applicable Measures Is Determined By:

Cost of the measure including design, construction, and maintenance.

Savings from the measure which in turn is determined by the amount of energy saved and the price which would be paid for the energy if it is not saved.

Because there is substantial variation in the above factors from one building to another, cost-effective measures will differ significantly for different buildings. Exhibit E-2 shows measures were found by energy audits to be cost-effective (i.e., meet owners investment criterion) for apartment buildings in various U.S. locations. As illustrated in this exhibit, cost-effective measures differ significantly from building to building. Therefore, it is not possible to say definitively which measures are best for apartments. However, it is possible to make some generalizations with regard to the relative potential of different types of measures. The remaining sections of this appendix provide such assessments.

3. Heating System Measures Offer the Largest Conservation Potential.

In general, heating system modification measures offer the greatest potential for significant energy savings. Review of energy audits shows that substantial heating energy savings can often be achieved—sometimes exceeding 50 percent of original heating energy consumption—through a combination of heating system conservation measures. Many of these measures are cost-effective—often with paybacks less than three years. The types of measures which offer the most attractive potential are:

Boiler efficiency improvements.

Controls improvements.

Insulation of distribution piping.

Boiler efficiency improvements range anywhere from simple burner cleaning to complete replacement. Simple low cost operations and maintenance measures are particularly cost-effective and should be undertaken before any other measures.

*Code compliance requirements applicable in some locations.

A major waste of energy occurs in the over heating of buildings, particularly older ones with central systems, because of lack of improper functioning of temperature controls. This waste is aggravated by overheated tenants opening windows to get rid of the excess heat—in turn causing the heating system to supply still more heat. It is suspected—without any supporting data unfortunately—that this situation may represent the single greatest energy waste problem in the older buildings in the Northeast and elsewhere. To reduce overheating two types of measures are most effective:

Improved temperature controls.

Insulation of exposed distribution piping.

One temperature control measure in particular appears quite promising—thermostatic radiator valves. These valves are retrofitted to existing radiators and prevent introduction of hot supply water or steam if the temperature in the space does not require heat, by simply bypassing the radiator.

4. Building Envelope Measures are Less Cost-Effective.

Energy audits of apartments indicate that building envelope conservation measures—such as insulation and storm windows—are often less cost-effective than other measures to save heating energy and often do not meet the payback criteria limits of apartment owners. Several factors contribute to this situation.

If overheating is a major cause of heating energy waste, envelope measures will not save any energy and may even increase the severity of the problem resulting in even greater energy waste as windows are opened to offset excess heat.

The exterior envelope surface of apartment buildings, particularly larger ones, is mostly wall surface, which is costly or impractical to retrofit with insulation. By contrast, a significant portion of the envelope of single family houses is attic space which is relatively inexpensive to insulate.

Apartment windows are not as standardized as those of single family houses. This causes storm windows for apartments to be more expensive. In addition, installation of storm windows for high-rise buildings is more difficult, thus more costly, than in single family houses.

It is important to point out that these general findings about envelope measures do not apply to all situations. For example, in poorly insulated low rise, gable roof apartment buildings, attic insulation may be very cost-effective.

Interestingly, the NAA survey of apartment owners described in Appendix D indicates that building envelope measures are among the most frequently installed measures by owners who have taken conservation actions. Since most of these owners probably had not had a professional energy audit, it appears that many owners may have installed insulation and storm windows as a result of marketing efforts on the part of vendors of these products, rather than on the basis of sound engineering economic analysis.

5. Water Heating Energy Conservation Potential is Limited.

Domestic hot water heating (DHW) accounts for the second largest portion of energy consumption in apartments. Unlike heating, domestic hot water energy use is not significantly affected by location and thus represents a conservation opportunity in all areas of the country. Several DHW measures are often found to be cost-effective, where they are applicable:

Flow reducers at faucets.

Reduction of DHW temperature—but not below limits (if any) set by code.

Installation of timer to reduce hot water recirculation during low usage hours, however, this may be prohibited by codes in some jurisdictions.

Insulation of DHW storage tanks and distribution piping, although for larger central systems tanks are almost always already insulated and piping is usually inaccessible.

Although the above measures are often cost-effective to apartment owners, they save a relatively small percentage of water heating energy—even in combination. This is true because there is an unavoidable energy need to raise water temperature from normal supply temperature of around 55° F. to minimum acceptable residential DHW temperatures of at least 125° F. Therefore, the only means of obtaining substantial reduction in DHW energy consumption is through utilization of alternative energy sources, such as solar or waste heat recovery, to displace fossil fuels.

The opportunity for solar energy for water heating is most favorable in the Southern region for several reasons. Availability of sunlight is greatest and water heating is the largest component of apartment energy use in the South (37 percent). In the Southern region about 25 percent of water heating energy is presently provided by electricity and solar systems are most cost-effective as a substitute for electricity than for fossil fuels.

In most cases solar energy water heating systems do not meet the cost-effectiveness criteria of apartment owners at present system cost levels, even in the South. Federal solar tax credit incentives enacted as part of the National Energy Act help somewhat but are still not sufficient to make solar cost-effective to most apartment owners.

6. Lighting and Cooling Conservation Measures Offer Little Savings Potential. Several lighting and cooling conservation measures are cost-effective where they are applicable. However, these two end-uses constitute such a small percentage of national energy consumption that the aggregate savings potential is small.

7. Metering Conversion Has Limited Applicability.

Conversion from master metering to individual metering is done to make tenants pay directly for energy used and thereby to encourage conservation behavior. While this is probably effective, the applicability of metering conversion is limited because metering conversion is not practical for the central fossil fuel heating and hot water systems which account for the bulk of energy consumption in apartments. This factor sometimes leads to an undesirable situation in which apartment owners desiring to individually meter tenants convert heating systems having central fossil fuel systems to decentralized electric systems. Such conversions may result in increased primary energy consumption in cases where fossil fuels are used by the utility company to generate power.

The issues related to metering conversion are complex. For further information, these are dealt with in much greater depth than is possible here in a concurrent study conducted by the DOE Office of Buildings and Community Systems.¹

Mr. McCLORE. Just very briefly, Mr. President, because I tend to be sympathetic with the goals of the Senator from New York, I find it very difficult for me at this hour to say I oppose the amendments but I must because we wrestled with all of these balances at great length. Although I did not agree with all the balances that were struck in the committee measure, I have to say that I think that they dealt with a number of the problems that have been identified by the Senator from New York in a slightly different fashion. But, nevertheless, they were considered and after consideration the committee did vote on each of those items and in some instances I was on the side of the Senator from New York and would have tended to move in that direction. But it does not make sense to me to put an income limit on a man who owns a house, an individual home, or a small residence and then have no income limit on the great big multiple unit residence, and that is what the Senator's amendment would do.

That is just an example, I think, of the tendency in which the amendments fail to keep the kind of balance that we tried to strike in the committee. Therefore, I must reluctantly oppose the amendment.

Mr. JOHNSTON. Mr. President, I move to table the Javits amendment and ask for the yeas and nays.

The PRESIDING OFFICER. Is there a sufficient second? There is a sufficient second.

The yeas and nays were ordered.

The PRESIDING OFFICER. Do Senators yield back the remainder of their time?

Mr. JAVITS. I yield back the remainder of my time.

Mr. JOHNSTON. I yield back the remainder of my time.

The PRESIDING OFFICER. The question is on agreeing to the motion of the Senator from Louisiana to lay on the table the amendments en bloc of the Senator from New York.

¹ *Alternative Metering Practices: Implications for Conservation in Multifamily Residences*, Report prepared for DOE by Booz, Allen & Hamilton under Contract EC-77-003-1693, March, 1979.

On this question the yeas and nays have been ordered, and the clerk will call the roll.

The legislative clerk called the roll.

Mr. CRANSTON. I announce that the Senator from Indiana (Mr. Bayh), the Senator from Texas (Mr. Bentsen), the Senator from Arkansas (Mr. Bumpers), the Senator from Nevada (Mr. Cannon), the Senator from Arizona (Mr. DeConcini), the Senator from Kentucky (Mr. Huddleston), the Senator from Massachusetts (Mr. Kennedy), the Senator from Connecticut (Mr. Ribicoff), and the Senator from Tennessee (Mr. Sasser) are necessarily absent.

I also announce that the Senator from Delaware (Mr. Biden) is absent because of illness.

I further announce that, if present and voting, the Senator from Texas (Mr. Bentsen) would vote "yea."

I further announce that, if present and voting, the Senator from Connecticut (Mr. Ribicoff) would vote "nay."

Mr. STEVENS. I announce that the Senator from Tennessee (Mr. Baker), the Senator from Maine (Mr. Cohen), the Senator from Arizona (Mr. Goldwater), the Senator from Kansas (Mrs. Kassebaum), the Senator from South Dakota (Mr. Pressler), and the Senator from South Carolina (Mr. Thurmond), are necessarily absent.

I further announce that, if present and voting, the Senator from South Carolina (Mr. Thurmond) would vote "yea."

The PRESIDING OFFICER. (Mr. Sarbanes). Are there any Senators in the Chamber desiring to vote who have not yet voted?

The result was announced—yeas 45, nays 39, as follows:

[Rollcall Vote No. 395 Leg.]

YEAS—45

Armstrong	Gravel	Metzenbaum
Baucus	Hart	Morgan
Bellmon	Hatch	Muskie
Boren	Heflin	Nelson
Burdick	Helms	Nunn
Byrd, Harry F., Jr.	Hollings	Proxmire
Byrd, Robert C.	Humphrey	Pryor
Chiles	Jackson	Randolph
Church	Johnston	Stafford
Cochran	Leahy	Stennis
Durenberger	Long	Stewart
Eagleton	Lugar	Talmadge
Exon	Magnuson	Wallop
Ford	Matsunaga	Young
Garn	McClure	Zorinsky

NAYS—39

Boschwitz	Inouye	Roth
Bradley	Javits	Sarbanes
Chafee	Jepsen	Schmitt
Cranston	Lexalt	Schweiker
Culver	Levin	Simpson
Danforth	Mathias	Stevens
Dole	McGovern	Stevenson
Domenici	Melcher	Stone
Durkin	Moynihan	Tower
Glenn	Packwood	Tsongas
Hatfield	Pell	Warner
Hayakawa	Percy	Welcker
Heinz	Riegle	Williams

NOT VOTING—16

Baker
Bayh
Bentsen
Biden
Bumpers
Cannon

Cohen
DeConcini
Goldwater
Huddleston
Kassebaum
Kennedy

Pressler
Ribicoff
Sasser
Thurmond

So the motion to lay on the table Mr. Javits' amendments was agreed to.

Mr. HEINZ. Mr. President, I send an amendment to the desk.

Mr. McCURE. Mr. President, I ask unanimous consent that the amendment of the Senator from West Virginia be temporarily laid aside.

The PRESIDING OFFICER. The motion to table having been agreed to, under the precedents of the Senate, the question now is on—

Mr. HEINZ. Mr. President, I ask unanimous consent that the amendment of the Senator from West Virginia be temporarily laid aside, for the purpose of offering another amendment.

The PRESIDING OFFICER. Without objection, it is so ordered.

Mr. JOHNSTON. Mr. President, I move to reconsider the vote by which the motion to lay on the table was agreed to.

Mr. ROBERT C. BYRD. I move to lay that motion on the table.

The motion to lay on the table was agreed to.

Mr. HEINZ. Mr. President, I renew my request.

The PRESIDING OFFICER. The question now is on agreeing to the unanimous-consent request of the Senator from Pennsylvania that the amendment of the Senator from West Virginia be temporarily set aside. Is there objection to the request of the Senator from Pennsylvania? The Chair hears none, and it is so ordered. The Chair recognizes the Senator from Pennsylvania.

UP AMENDMENT NO. 770

(Purpose: To stimulate the utilization of abandoned or underutilized industrial facilities for the generation of energy from any locally available renewable resource)

Mr. HEINZ. Mr. President, I send an amendment to the desk and ask for its immediate consideration.

The PRESIDING OFFICER. The amendment will be stated.

The second assistant legislative clerk read as follows:

The Senator from Pennsylvania (Mr. Heinz) proposes an unprinted amendment numbered 770.

Mr. HEINZ. Mr. President, I ask unanimous consent that further reading of the amendment be dispensed with.

The PRESIDING OFFICER. Without objection, it is so ordered.

The amendment is as follows:

On page 309, line 9, strike "and";

On page 309, line 12, strike "." and insert in lieu thereof, "; and";

On page 309, after line 12, insert the following new paragraph:

"(4) to stimulate the utilization of abandoned or underutilized industrial facilities for the generation of energy from any locally available renewable resource, such as municipal solid wastes, agricultural wastes, or forest products waste."

Mr. FORD. Mr. President, will the Senator yield for a point of information?

Mr. HEINZ. I am pleased to yield to the Senator from Kentucky.

Mr. FORD. Can we determine how many more amendments will be offered to this piece of legislation before the evening is over? Can the floor manager give me some kind of indication of how many more amendments there will be tonight?

Mr. HEINZ. Mr. President, may we have order so that we can hear the Senator from Kentucky?

The PRESIDING OFFICER. The Senator's point is well taken. The Senate will be in order. Senators will please take their seats. Staff members will clear the aisles.

Mr. FORD. Mr. President, I will repeat my question. Can the floor manager give us some idea of how many amendments there will be? I have one; it may take some little time. That is not my fault. But I am wondering how many other amendments there will be.

Mr. JOHNSTON. Mr. President, I think the Senator from New Hampshire has three. I hope he has eliminated all the amendments we cannot take.

Mr. DURKIN. Yes, I have three that there is no objection to.

Mr. JOHNSTON. I hope the Senator is correct. The Senator from Ohio (Mr. Glenn) has one.

Mr. GLENN. I have one, and probably one with the majority leader, if you are counting that one. We are working on it now.

Mr. JOHNSTON. Yes. The Senator from Michigan (Mr. Levin) I think has three, which we are working to try to make acceptable. We have not yet worked that out.

The Senator from Idaho has three. Are those the three that we have agreed upon?

Mr. McCLURE. And one the committee recommended.

Mr. JOHNSTON. I do not believe we are going to require a vote on the amendments of the Senator from Idaho.

Mr. McCLURE. I do not believe so.

Mr. JOHNSTON. I do not know of other amendments.

Mr. FORD. Mr. President, that is 10 or 11 amendments, plus the amendment that is before the Senate, which makes 12. So we have 12 amendments, then, that will be pending before we leave here tonight, on this bill.

Mr. JOHNSTON. I hope that is all we have.

Mr. FORD. I suspect there may be more. There are some developing.

Mr. JOHNSTON. Please do not consider that as an invitation from the floor manager for more amendments.

Mr. FORD. Mr. President, I have one final question. I appreciate the patience of the Senator from Pennsylvania.

Is the manager first going to take the amendments that apparently will be acceptable?

Mr. JOHNSTON. I hope we could take the acceptable amendments first before we vote.

Mr. FORD. We have already lost 16 Members so far, and with 11 amendments still to go I expect there might not be quite 84 Members remaining.

Mr. HEINZ. Mr. President, we are an affluent people; we are, however, also a wasteful people. In years past our failure to reuse vital resources has caused little immediate harm but, we are now faced with the cumulative effects of our neglect. Our reserves of nonrenewable fossil

fuels have dramatically dwindled and we are in an age when we must reconsider our management of all of our resources. I am today offering an amendment to S. 932 which will begin to redirect our attention to the understanding of America's full potential and ingenuity. This amendment will quite simply encourage the development and distribution of information which will aid local governments and private decisionmakers in their planning for and implementation of programs which will develop an alternative energy industry, using existing and renewable human, natural, industrial, and commercial resources.

Each year this Nation produces: 140 million tons of municipal solid waste; 277 million dry tons of agricultural waste; 124 million dry tons of forest waste; and, 26 million tons of fecal waste.

These products are not in fact waste but raw materials capable of producing heat, electricity, steam, gas, and oil.

Within all of our States there exist abandoned or underutilized industrial or commercial facilities which could again be turned to productive purposes. As was recently brought to my attention, in a study prepared by the Northeast Solar Energy Center, the similarities between the physical plants necessary to produce steel and those to produce such renewable energy sources as pelletized wood are remarkable.

Within a 50-mile radius of the towns and cities which make up our States there exists an unemployed labor force, who with little training can turn an area's municipal solid waste into the fuel which heats its homes.

To date, there have been various parties who have spoken against our utilization of waste materials as natural resources. Today's economy, however, requires a reevaluation of this policy.

What I am today suggesting in my amendment is the rudimentary beginnings of a Federal program which will aid local jurisdictions in evaluating their potential natural wealth and in planning for its utilization.

Basically, this program will provide for the development of a handbook which will give local decisionmakers a "recipe" for increasing their energy independence. It will show them how to evaluate abandoned facilities for their potential as energy factories; it will offer a procedure by which market potential may be estimated; it will suggest changes in local zoning and use regulations so that a community may both produce and use locally derived energy in a manner compatible with human health; it will suggest the private and public mechanisms which a town can use to finance its own energy development; and, finally, if successful, it will offer the Congress another vital option in its attempt to deal with the energy crisis.

This amendment does not support a massive construction program nor even a small pilot plant. It expands on the program in section 607 of the bill, which directs the Secretary to research, collate and publish information necessary for local action. It does not create new programs but augments existing ones. It will allow such agencies as the Northeast Solar Energy Center to play the role for which it was established. The identification and brokerage of private sector alternative energy generation opportunities—not pilot plants, demonstrations nor grants—but technically and economically feasible moneymaking propositions.

Mr. President, I urge adoption of this amendment.

I will summarize and only say that the purpose of this amendment is to provide for a utilization of an additional energy self-sufficiency initiative under section 607. It is essentially a permissive amendment in order to stimulate the utilization of abandoned or underutilized industrial facilities for the generation of energy through any locally available renewable resource, in other words, biomass.

I have discussed this with the managers of the bill and I understand it is acceptable to them.

Mr. JOHNSTON. Mr. President, this is, in fact, a permissive amendment, authorizing the establishment of a program for the purposes stated, and we accept the amendment.

Mr. McCURE. Mr. President, we are pleased to accept the amendment and we are ready to vote.

The PRESIDING OFFICER. The question is on agreeing to the amendment.

The amendment (UP No. 770) was agreed to.

Mr. HEINZ. Mr. President, I move to reconsider the vote by which the amendment was agreed to.

Mr. McCURE. Mr. President, I move to lay that motion on the table.

The motion to lay on the table was agreed to.

Several Senators addressed the Chair.

The PRESIDING OFFICER. The Senator from Idaho.

Mr. McCURE. Mr. President, I ask unanimous consent that the amendment of the Senator from West Virginia be temporarily laid aside so that the Senator from Idaho may offer two amendments.

The PRESIDING OFFICER. Is there objection? Without objection, it is so ordered.

UP AMENDMENT NO. 771

Mr. McCURE. Mr. President, I send an amendment to the desk and ask for its immediate consideration.

The PRESIDING OFFICER. The amendment will be stated.

The legislative clerk read as follows:

The Senator from Idaho (Mr. McCure) proposes an unprinted amendment numbered 771:

Page 282, line 2, strike the period and insert in lieu thereof,
"or section 883-1 (a) through (e) of Title 46, United States Code."

Mr. McCURE. Mr. President, this deals with the eligibility test in the geothermal section of the bill. We unfortunately had one amendment that needs to be added to the test that we had applied there. This amendment would supply the additional test on eligibility. I think it is agreeable on both sides.

Mr. JOHNSTON. Mr. President, this simply makes clear that Shell Oil meets the citizenship test with respect to a geothermal installation and is a good candidate. We accept the amendment.

The PRESIDING OFFICER. The question is on agreeing to the amendment.

The amendment (UP No. 771) was agreed to.

Mr. McCURE. Mr. President, I move to reconsider the vote by which the amendment was agreed to.

Mr. JOHNSTON. Mr. President, I move to lay that motion on the table.

The motion to lay on the table was agreed to.

UP AMENDMENT NO. 772

Mr. McCLURE. Mr. President, I send a second amendment to the desk and ask for its immediate consideration.

The PRESIDING OFFICER. The amendment will be stated.

The legislative clerk read as follows :

The Senator from Idaho (Mr. McClure) proposes an unprinted amendment numbered 772.

Mr. McCLURE. Mr. President, ask unanimous consent that further reading of the amendment be dispensed with.

The PRESIDING OFFICER. Without objection, it is so ordered.

The amendment is as follows :

Page 67, line 9, after the period insert the following : "Specifically, the project shall include the facility which converts the domestic resource to the liquid, gaseous or solid hydrocarbon which can be used as a substitute for supplies of petroleum or natural gas and any facilities and equipment to be used in the extraction of a mineral directly for such conversion, which are co-located with the conversion facility : *Provided*, That facilities and equipment used in extraction of a mineral for any other use shall not be included in the project : *And provided further*, That property or services obtained for the facility in a transaction with a person who has or will have a substantial ownership or profits interest in the facility shall be valued at the lower of cost to the project or fair market value disregarding any portion of such market value which is attributable to the prospect of receiving financial assistance under this title."

Page 81, line 12, after the period, insert the following : "The comprehensive strategy shall directly address and give emphasis to private sector responsibilities in the efforts necessary to achieve such goal, and additionally shall specifically address how any federal involvement recommended in the strategy will be expressly limited and ultimately terminated upon a date or event certain in the future."

Page 88, line 16, after the period insert the following :

"The Corporation shall not make such requirement unless the Board determines that such recipient has made a full, good faith effort to satisfy all the requirements for such regulatory action, that the regulatory action or lack of a final agency action without further pending judicial review, and that the regulatory action or lack of action is, in fact, an absolute bar to construction of the project (rather than merely an additional requirement for action by the recipient associated with such construction)."

Page 91, line 2, after the period insert the following :

"The Corporation shall not award more than a single form of financial assistance under this title unless the Board determines that multiple forms of financial assistance are required for the viability of the project, and further that the project is necessary to satisfy the goals and objectives of this title."

Page 91, line 2, insert a new subsection 131(p), which reads as follows :

"(p) The Corporation shall make awards of loan guarantee assistance pursuant to section 133 only upon a determination of the Board that price guarantees and purchase agreements will not adequately support the construction and operation of the synthetic fuels project or will restrict the available participants for that project. Additionally, the corporation shall not award financial assistance in the form of loans pursuant to section 132 or joint ventures pursuant to section 136 unless the Board determines that price guarantees, purchase agreements and loan guarantees will not adequately support the construction and operation of the synthetic fuels project or will restrict the available participants for that project."

Page 91, line 2, insert a new subsection 131(q), which reads as follows :

"(q) The Corporation, in consultation with the Secretary of Treasury, shall insure to the maximum extent feasible that the timing interest rate and substantial terms and conditions of any financial assistance will have the minimum possible impact on the capital markets of the United States, taking into account other Federal activities which directly or indirectly impact on such capital markets. Additionally, the Corporation shall impose such terms and conditions on any financial assistance under this title (after analyzing the financing

of the facility, the tax benefits which would be available to investors in the facility, and any regulatory actions associated with the facility) as may be necessary to assure that any investors having an ownership or profit interest in the facility bear a substantial risk of after tax loss in the event of any default or other cancellation of the project."

Page 91, line 2, insert a new subsection 131(r), which reads as follows:

"(r) The Corporation shall insure that financial assistance awarded under this title encourages and supplements, but does not compete with nor supplant any private capital investment which otherwise would be available at a viable cost for a proposed, specific synthetic fuel project. To that end, the Corporation shall establish internal procedures, standards and criteria for the timely review for compliance with such requirement of each new award of financial assistance. for a specific proposed synthetic fuel project, and further the Board shall determine that any financial assistance by the Corporation for the project will not compete with or supplant such available private capital investment and that adequate financing for the project would not otherwise be available at a viable cost for the project without financial assistance under this title."

Page 91, line 11, strike the period and insert in lieu thereof "colon, *Provided That*, a loan under this section shall be limited to the lesser of the maximum of 49% of the project costs or not more than a minority financial position in the project, unless the Board determines that the borrower has satisfactorily demonstrated that such limits would prevent the financial viability of the proposed project and therefore additional loan assistance is necessary."

Page 94, line 2, strike the period and insert in lieu thereof, "., *Provided further*, that loan guarantee assistance pursuant to this section shall be limited to concern or concerns which by virtue of their size and assets otherwise would be unable to finance such a project."

Page 96, line 20, after the period, insert the following:

"In awarding financial assistance under this section, the Corporation shall establish such specified sales price at the level which will provide the minimum subsidy determined by the Board to be necessary to provide an adequate incentive, in light of projected prices of competing fuels and the requirements for economic and financial viability of the synthetic fuels project."

Page 91, line 2, insert a new subsection 131(s), which reads as follows:

"(s) Any price guarantee pursuant to section 134 or purchase agreements pursuant to section 135 shall include an express provision to the effect that the price or purchase agreement shall be the subject of review and possible renegotiation in not less than ten years from the date of initial production by the project, at which point the Corporation shall specifically determine the need for continued financial assistance pursuant to such agreement."

Page 101, line 4, insert the following new subsection (e) as follows:

"(e) The Corporation participation in any joint venture pursuant to this section shall be limited to financial participation only and shall not include any direct role in the management, construction or operation of the module. Additionally, the Corporation's participation in any joint venture shall, pursuant to partnership law applicable to such joint venture, be limited to limited partnership status, with only financial participation in the venture. Additionally, such limited partnership shall not exceed a minority equity position in such joint venture and under no circumstance shall provide for the Corporation to obtain a majority equity position in the project."

Page 91, line 2, insert a new subsection 131(t), which reads as follows:

"(t) Any specific tax credit directly associated with a synthetic fuels project shall be taken into consideration in determining the need for financial assistance awarded pursuant to this title."

Page 102, lines 14 and 15, strike "concern anticipates going to default or is in default" and insert in lieu thereof "the Board determines that the concern is in default or immediately will go into default".

Page 103, line 2, strike the period and insert in lieu thereof, "., *provided* additionally that authorities in this subsection shall not be available for synthetic fuel projects which are the subject of price guarantees and purchase agreements."

Page 104, line 7, after the period, insert a new subsection 137(e) which reads as follows:

"(e) Any Congressional review and disapproval pursuant to subsections (b) and (c) shall utilize the procedures specified in the Energy Policy and Conservation Act, section 551."

Page 104, line 7, after the period, insert a new subsection 137(f) which reads as follows:

"(f) Any control of synthetic fuel projects obtained pursuant to subsections (b) or (c) must be disposed of within not more than five years after acquisition of such control."

Page 105, line 22, after the period, insert:

"The Corporation shall by public sale dispose of any security within one year after the Corporation obtains title to the security (except this shall not apply to securities held as collateral for financial assistance)."

Page 121, line 22, after the comma, insert:

"or upon petition of the Comptroller General of the United States."

Page 125, line 25, Section 171(b)—General Powers.

An line 25, strike the period and insert in lieu thereof "and, notwithstanding any other provision of law, the Corporation shall have no legal authority, power, or purpose pursuant to this title or any other law to engage in any other activities of a business, commercial, financial, or investment nature or perform any governmental function; and any violation of this subsection shall be subject to punishment pursuant to section 166, additional penalties pursuant to section 166 and equitable relief pursuant to section 167."

TECHNICAL AMENDMENT—FUNDING AUTHORIZATION

At page 146, strike lines 9 through 11 and insert in lieu thereof the following: "the 'Energy Security Reserve' established in the Treasury of the United States by the Department of the Interior and Related Agencies Appropriation Act, 1980, which account, and the appropriations therefor, shall be available to the Secretary for the purpose of carrying out the purposes of this title. The appropriations and authorities provided for alternative fuels production in said Appropriations Act are hereby authorized without fiscal year limitation."

At page 146, line 18, strike "synthetic fuel account" and insert "Energy Security Reserve account."

At page 146, line 24, strike "synthetic fuel account" and insert "Energy Security Reserve account."

Mr. McCURE. Mr. President, this amendment is a series of technical amendments to the language of the bill which were negotiated with the Senator from New Mexico, the Senator from Louisiana, and myself, starting before the vote yesterday and culminating just a few minutes ago. I think in each instance the entire language is acceptable to the managers of the bill on both sides. It deals only with title 1 of the bill.

Mr. JOHNSTON. Mr. President, I would first ask of the Senator from Idaho, and I think this is clear from his language, that this does not create a set of criteria for lawsuits against the corporation, but, rather, describes in greater detail and with more restriction the conditions under which the subsidization, whether by loans, price guarantees, et cetera, could be made.

Mr. McCURE. The Senator is correct.

Mr. JOHNSTON. Mr. President, we have approved this language and we accept the amendment.

The PRESIDING OFFICER. The question is on agreeing to the amendment.

The amendment (UP No. 772) was agreed to.

Mr. McCURE. Mr. President, I move to reconsider the vote by which the amendment was agreed to.

Mr. JOHNSTON. Mr. President, I move to lay that motion on the table.

The motion to lay on the table was agreed to.

The PRESIDING OFFICER. The Senator from New Hampshire.

Mr. DURKIN. Mr. President, I ask unanimous consent that the amendment of the Senator from West Virginia be temporarily laid aside so that I can proceed with an amendment.

The PRESIDING OFFICER. Is there objection? Without objection, it is so ordered.

UP AMENDMENT NO. 773

Mr. DURKIN. Mr. President, I send four amendments to the desk and ask for their immediate consideration.

The PRESIDING OFFICER. Is the Senator requesting that the amendments be considered en bloc?

Mr. DURKIN. Yes.

The PRESIDING OFFICER. Is there objection to the request?

Mr. JOHNSTON. I have no objection to considering these en bloc, Mr. President, if I can get copies. I think these are the ones I am ready to accept.

Mr. DURKIN. The Senator has all of my copies now. I am down to the last one.

The PRESIDING OFFICER. Without objection, the four amendments sent to the desk by the Senator from New Hampshire will be considered en bloc, and the clerk will report the amendment.

The legislative clerk read as follows:

The Senator from New Hampshire (Mr. Durkin) proposes an unprinted amendment numbered 773.

Mr. DURKIN. Mr. President, I ask unanimous consent that further reading of the amendment be dispensed with.

The PRESIDING OFFICER. Without objection, it is so ordered.

The amendment is as follows:

On page 337, line 4 add:

The Solar Bank may make payments reducing the principal obligations of loans to builders of residential and commercial buildings. No more than 20% of the funds available to the bank shall be made directly to builders during the first year of the bank's operation. In the case where the builder receives a payment, the total payments to the builder and any subsequent owners, on qualifying systems, shall not exceed 40 percent of the amount of such expenditures.

On page 337, line 19 add: (except in the case of loans or payments made to builders, where no such minimum term shall apply).

On page 340, after the word program, add the following sentence: This report shall also assess the relative effectiveness of subsidies made to builders and subsidies made to purchasers.

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That the Defense Production Act Amendments are amended by adding at the end thereof the following new section:

"SMALL-SCALE HYDROPOWER INITIATIVES

"SEC. 1. That the Public Utility Regulatory Policies Act of 1978 (16 U.S.C. 2708) is amended as follows:

"(a) In section 408 by deleting paragraph (1) and inserting in lieu thereof—

"(1) small hydroelectric power projects means any hydroelectric power project which has not more than 30,000 kilowatts of installed capacity;"

"SEC. 3. (a) The Secretary of Energy shall establish, within six months after the date of enactment of this part, such rules and regulations necessary to fully implement Title IV of the Public Utility Regulatory Policies Act of 1978 (92 Stat. 3117).

"(b) Not later than 3 months after the date of the enactment of this part, the Secretary of Energy shall complete a study of the existing federal programs and policies relating to the development and commercialization of small-scale hydropower which contains (1) a survey and description of such federal programs and policies, (2) an assessment of the efficacy of such federal programs and related policies, and (3) the need for consolidation, reorganization or change in such programs and policies in order to improve and insure their effectiveness.

"SEC. 4. (a) There is hereby authorized to be appropriated in each of the fiscal years 1981 and 1982 not to exceed \$10,000,000 in addition to the amounts author-

ized by the Public Utility Regulatory Policies Act of 1978 for purposes of loans to be made pursuant to section 402, such funds to remain available until expended.

"(b) There is hereby authorized to be appropriated in each of the fiscal years 1981 and 1982 not to exceed \$100,000,000 in addition to the amounts authorized by the Public Utility Regulatory Policies Act of 1978 for purposes of loans to be made pursuant to section 403, such funds to remain available until expended."

Mr. DURKIN. Mr. President, the first amendment is a technical amendment to provide eligibility for passive solar with respect to the solar bank. It takes care of the special problems of builders using the subsidized loans of the solar bank. One of the problems has been that the builder has no incentive to incorporate passive solar design. This amendment clarifies the provision in the bill which provides for the builders.

Mr. JOHNSTON. Will the Senator yield for a question?

Mr. DURKIN. I yield.

Mr. JOHNSTON. Does the Senator have the 40 percent limitation?

Mr. DURKIN. Forty percent in the next to the last line.

Mr. JOHNSTON. Mr. President, my copy of that amendment has 50 percent.

Mr. DURKIN. Mr. President, the one I sent to the desk has 40 percent.

Mr. JOHNSTON. Mr. President, I have no objection to this amendment. I have some reservations about grants of this size to builders but I would not impose any objection at this time. We will try to make this acceptable in whole or in part in the conference committee.

Mr. McCLURE. Mr. President, we are prepared to accept the amendment.

Mr. DURKIN. Mr. President, I move adoption of the amendment.

The PRESIDING OFFICER. Earlier the unanimous-consent request of the Senator from New Hampshire was for all four amendments to be considered en bloc.

Mr. DURKIN. The Chair is correct.

Mr. President, the second amendment changes the definition of small scale hydro from 15,000 to 25,000 kilowatts. Similar legislation has been introduced in the past by Senator Jackson and myself earlier in the year.

I do not believe there is any objection.

Mr. JOHNSTON. Mr. President, will the Senator yield?

Mr. DURKIN. I yield.

Mr. JOHNSTON. I ask, did the Senator take out section 2, authorizing FERC to surrender licensing authority to State agencies?

Mr. DURKIN. Yes.

Mr. JOHNSTON. That has been stricken.

That amendment is acceptable, Mr. President.

Mr. President, I am advised by the clerk that section 2 has not been taken out of the bill.

Mr. McCLURE. A parliamentary inquiry, Mr. President.

The PRESIDING OFFICER. The Senator will state it.

Mr. McCLURE. The Senator from New Hampshire would have the right to modify it by striking section 2, would he not?

Mr. DURKIN. I think the Senator could look at that copy.

Mr. JOHNSTON. I am advised that the Senator has in fact stricken it.

The PRESIDING OFFICER. It will take unanimous consent to strike section 2.

Mr. JOHNSTON. I am advised by the clerk, Mr. President, that *section 2 has been stricken*.

Mr. DURKIN. I ask unanimous consent to strike section 2.

The PRESIDING OFFICER. Section 2 has been stricken from the amendment offered by the Senator.

Mr. DURKIN. The third amendment, Mr. President, requires DOE to establish such rules and regulations as it requires to assess the effectiveness of the loan program. I do not believe there is any objection to that.

The fourth part extends the authorization on DOE loan programs through 1982.

Mr. McCLURE. Mr. President, we have no objection. I commend the Senator for accomplishing with this amendment something we have been trying in the committee to get accomplished for a year. We accept the amendment.

Mr. JOHNSTON. Mr. President, the Senator is referring, when referring to amendments 3 and 4, to sections 3 and 4 on the amendment given to me, is that correct?

Mr. DURKIN. The Senator is correct.

Mr. JOHNSTON. Mr. President, we have no objection to the amendment.

Mr. DURKIN. Mr. President, I move the adoption of the amendment.

The PRESIDING OFFICER. The question is on agreeing to the four amendments en bloc.

The amendments are agreed to en bloc.

Mr. DURKIN. Mr. President, I move to reconsider the vote by which the amendment was agreed to.

Mr. McCLURE. I move to lay that motion on the table.

The motion to lay on the table was agreed to.

The PRESIDING OFFICER. The question recurs on the amendment of the Senator from West Virginia.

Mr. JOHNSTON. Mr. President, I ask unanimous consent that the amendment of the Senator from West Virginia be temporarily set aside.

The PRESIDING OFFICER. Without objection, it is so ordered.

UP AMENDMENT NO. 774

Mr. JOHNSTON. Mr. President, I send an amendment to the desk and ask for its immediate consideration.

The PRESIDING OFFICER. The amendment will be stated.

The legislative clerk read as follows:

The Senator from Louisiana (Mr. Johnston) proposes an unprinted amendment numbered 774.

Mr. JOHNSTON. I ask unanimous consent that further reading of the amendment be dispensed with.

The PRESIDING OFFICER. Without objection, it is so ordered.

The amendment is as follows:

SEC. 704. is amended by deleting paragraph (7) and inserting in lieu thereof:

(7) the term "cost-effective" means the simple sum of all capital and operating expenses associated with the system can be recovered over the expected life of the system or during a period of thirty years, whichever is shorter, using noninflationary dollars, marginal fuel costs as determined by the Secretary, and a real discount rate of 3 per centum per year. The marginal fuel cost shall be the equivalent of the cost of oil in international markets plus fees for international transportation, refining, and domestic delivery. In the case of natural gas, coal, and nuclear fuel, the marginal cost shall be the cost of the most expensive 10 per

centum of fuel supplies in the region purchased or contracted for during the previous quarter. In the case of electricity, the marginal price shall be the least cost new supply which would have been charged by the utility in the service area supplying the facility. Least cost new supply may, if appropriate, include externally purchased power and demand management. In the case where new capital is required the assumption shall be that the new capital plant and equipment in the service area is financed at the average cost of new capital available to the utility, that equipment is purchased at the prices expected for new plants ordered in the region, and that fuel used by the utility is purchased at the marginal prices described previously.

Mr. JOHNSTON. Mr. President, this is a technical correction of an amendment numbered 766, passed earlier today, by the Senator from New Hampshire. It simply rearranges some numbers and some technical data in the bill which did not fit in the bill. There is no substantive change whatsoever.

The PRESIDING OFFICER. The question is on agreeing to the amendment.

Mr. DOMENICI. Mr. President, we have no objection on this side. The amendment was agreed to.

Mr. DURKIN. I move to reconsider the vote by which the amendment was agreed to.

Mr. FORD. I move to lay that motion on the table.

The motion to lay on the table was agreed to.

The PRESIDING OFFICER. The question now recurs on the amendment of the Senator from West Virginia.

Mr. BAUCUS. Mr. President, I ask unanimous consent that the amendment be temporarily laid aside.

The PRESIDING OFFICER. Without objection, it is so ordered.

UP AMENDMENT NO. 775

Mr. BAUCUS. Mr. President, I send an amendment to the desk and ask for its immediate consideration.

The PRESIDING OFFICER. The amendment will be stated.

The legislative clerk read as follows:

The Senator from Montana (Mr. Baucus) proposes an unprinted amendment numbered 775.

Mr. BAUCUS. I ask unanimous consent that further reading be dispensed with.

The PRESIDING OFFICER. Without objection, it is so ordered.

The amendment is as follows:

On page 260, on line 25, at the end of the line, add the following sentence: The Secretary may in consultation with appropriate state officials provide for definitions of energy audits that differ from region to region to account for regional variations in energy use.

Mr. BAUCUS. Mr. President, this is a simple amendment. It simply gives the Secretary authority to define energy audits that are required in the bill. Essentially, it allows the Department of Energy to consult with various States to provide for regional differences in energy audit criteria because of different conditions in different parts of the country. It is entirely discretionary with the Secretary of Energy.

Mr. JOHNSTON. Mr. President, will the Senator yield for a question?

Mr. BAUCUS. I yield to the Senator from Louisiana.

Mr. JOHNSTON. Mr. President, the Senator's amendment provides for definition of energy audits that differ from region to region.

Would it not be better to say "provide for criteria for energy audits?" It is not the definition but the criteria in the definition that we are concerned with.

Mr. BAUCUS. That is fine.

Mr. JOHNSTON. If the Senator will modify that, we are delighted to take it.

Mr. BAUCUS. Mr. President, I ask unanimous consent that the amendment be so modified.

Mr. JOHNSTON. That is by striking the word, "definition," and inserting in lieu thereof, "criteria for energy audits."

The PRESIDING OFFICER. Upon the request of the sponsor of the amendment, the amendment is so modified.

The amendment, as modified, is as follows:

On page 26, on line 25, at the end of the line, add the following sentence:

The Secretary may in consultation with appropriate state officials provide for criteria for energy audits that differ from region to region to account for regional variations in energy use.

Mr. FORD. Mr. President, I should like to say that this would be a logical place to bring up my amendment to amend the amendment of the distinguished Senator from Montana, that already has a unanimous-consent agreement. I am trying to work out something here and I do not want to keep the Senate in very long. I should like to have a vote on my little amendment. Apparently, there is a gun at my head. I just wanted to make the parliamentary point that I could have amended this amendment.

Mr. JOHNSTON. We sincerely thank the distinguished Senator from Kentucky, who is always noted for his courtesy and forbearance.

The PRESIDING OFFICER. The question is on agreeing to the amendment of the Senator from Montana.

Mr. DOMENICI. Mr. President, we have reviewed this amendment. We think it is a good amendment and we have no objection. We urge its adoption.

The PRESIDING OFFICER. The question is on agreeing to the amendment.

The amendment was agreed to.

Mr. BAUCUS. I move to reconsider the vote by which the amendment was agreed to.

Mr. DOMENICI. I move to lay that motion on the table.

The motion to lay on the table was agreed to.

Mr. BAUCUS. Mr. President, I ask unanimous consent that the amendment of the Senator from West Virginia be temporarily set aside.

Mr. DURKIN. Reserving the right to object, is there a second amendment?

Mr. BAUCUS. The Senator is correct.

Mr. DURKIN. On audits as well.

Mr. BAUCUS. No.

The PRESIDING OFFICER. Without objection, it is so ordered.

UP AMENDMENT NO. 776

Mr. BAUCUS. Mr. President, I have an amendment which I send to the desk and ask to have considered.

The PRESIDING OFFICER. The amendment will be stated.

The legislative clerk read as follows:

The Senator from Montana (Mr. Baucus) proposes an unprinted amendment numbered 776:

On page 88, on line 4 at the end of the line, add comma, to be followed by "and appropriate State agencies."

Mr. BAUCUS. Mr. President, very simply, I am suggesting that any contract for financial assistance required under the bill, where the boards of directors of the corporation and the synfuel plants have to consult with EPA or DOE, also be required to consult with the States. It is merely a provision to provide for consultation with States. There is no requirement that States have to give approval, no veto authority. It is merely consultation.

Mr. JOHNSTON. Mr. President, the Senator from Montana accurately states the amendment. We approve of it and accept it.

Mr. DOMENICI. Mr. President, we have not seen the amendment. We do not want to delay things, but could we see it?

Mr. President, we have no objection. Our staff had cleared that. They were confused as to whether it was the amendment which had been cleared. We urge its adoption.

The PRESIDING OFFICER. The question is on agreeing to the amendment.

The amendment was agreed to.

Mr. BAUCUS. I move to reconsider the vote by which the amendment was agreed to.

Mr. FORD. I move to lay that motion on the table.

The motion to lay on the table was agreed to.

The PRESIDING OFFICER. The question now recurs on the amendment offered by the Senator from West Virginia, amendment No. 741.

Mr. DOMENICI. Mr. President, I suggest the absence of a quorum.

The PRESIDING OFFICER. The clerk will call the roll.

The second assistant legislative clerk proceeded to call the roll.

Mr. JACKSON. Mr. President, I ask unanimous consent that the order for the quorum call be rescinded.

The PRESIDING OFFICER. Without objection, it is so ordered.

Mr. JACKSON. Mr. President, I yield to the Senator from Georgia (Mr. Talmadge).

UP NO. 751 (MODIFICATION)

Mr. TALMADGE. Mr. President, early in the afternoon, the Senate agreed to an amendment I offered. Due to a printing error, certain words were omitted from one sentence of the amendment. I ask unanimous consent that the amendment be corrected to include the words that I send to the desk at this time.

This is a technical amendment. It has been cleared on both sides of the aisle.

Mr. JOHNSTON. Mr. President, the Senator is correct. It is a technical amendment, and we support it.

Mr. BELLMON. There is no objection on the minority side.

The PRESIDING OFFICER. Without objection, the amendment will be stated.

Mr. TALMADGE. Mr. President, I ask unanimous consent that reading of the amendment be dispensed with.

The PRESIDING OFFICER. Without objection, it is so ordered.

The amendment is as follows:

On page 45 of unprinted amendment No. 751, insert after line 21 the following: "from biomass or efficient use of energy in rural areas, as provided in this section."

The PRESIDING OFFICER. The question is on agreeing to the modification of the amendment.

The modification to the amendment was agreed to.

Mr. TALMADGE. Mr. President, I move to reconsider the vote by which the modification to the amendment was agreed to.

Mr. JACKSON. I move to lay that motion on the table.

The motion to lay on the table was agreed to.

Mr. TALMADGE. I thank the distinguished floor manager of the bill.

Mr. JOHNSTON. I thank the distinguished Senator from Georgia.*

Mr. BRADLEY. Mr. President, I ask unanimous consent that the amendment of the Senator from West Virginia be temporarily set aside.

The PRESIDING OFFICER. Without objection, it is so ordered.

UP AMENDMENT NO. 777

Mr. BRADLEY. Mr. President, I send an amendment to the desk and ask for its immediate consideration.

The PRESIDING OFFICER. The amendment will be stated.

The legislative clerk read as follows:

The Senator from New Jersey (Mr. Bradley) proposes an unprinted amendment numbered 777.

Mr. BRADLEY. Mr. President, I ask unanimous consent that the reading of the amendment be dispensed with.

The PRESIDING OFFICER. Without objection, it is so ordered.

The amendment is as follows:

On page 311, at the end of title VI, add the following:

"Sec. (a) The Secretary of Energy (hereinafter referred to as "Secretary") may enter into price support loan agreements with the owner or operator of a resource recovery facility pursuant to the terms of which quarterly disbursements to such owner or operator shall be made in an amount calculated by multiplying the quantity (measured in millions of Btu's) of recovered fuel products or electricity or steam produced by the resource recovery facility by the support price as determined with reference to:

"(1) (A) in the case of recovered fuel products except as provided in subparagraph (B), the lesser of—

(i) the difference between the standard support price as determined under subsection (b) (1) and the average cost per million Btu value during the previous four fiscal quarters for fuel previously purchased by the customer who now intends to purchase, and thereby substitute, the recovered fuel products from the resource recovery facility, or

(ii) \$2.00 per million Btu value; or

"(B) Notwithstanding the above, in the case where a recovered fuel product displaces the use of oil, the amount of price support shall be the difference between the customer's actual cost of oil during the previous four fiscal quarters and the standard support price plus \$0.80 per million Btu value; or

"(2) (A) in the case of electricity or steam produced by the resource recovery facility except as provided in subparagraph (B), the lesser of—

(i) the difference between the adjusted support price, as determined under subsection (b) (2), and the average cost per million Btu value during the previous four fiscal quarters for electricity or steam previously purchased by the customer who now intends to purchase, and thereby substitute, the electricity or steam purchased from the resource recovery facility, or

(ii) \$2.00 per million Btu value; or

* Portion of Record not pertinent omitted.

"(B) Notwithstanding the above, in the case where a recovered fuel product displaces the use of oil, the amount of price support shall be the difference between the customer's actual cost of oil during the previous four fiscal quarters and the standard support price plus \$0.80 per million Btu value.

"(b) (1) For purposes of this section, the term "standard support price" means that price set by the Secretary which reflects the average cost per million Btu value over the preceding three months, as measured from that date when the Secretary determines such price, of imported 0.7% sulfur No. 6 fuel oil F.O.B. in New York harbor. *Provided that:* The Secretary shall determine the standard support price within six months of the enactment of this section, and such price shall be set on a cost per million of Btu value basis.

"(2) For purposes of this section the term "adjusted support price" means that price which is determined by the Secretary by multiplying the standard support price by such price support factors as are determined by the Secretary. The adjusted support price shall be applicable where electricity or steam produced by a resource recovery facility is sold to any customer.

"(3) For purposes of this section the term "price support factor" means those factors which take into account any operating efficiencies, other cost savings and any other economic benefits realized in producing such electricity or steam as determined by the Secretary pursuant to publishing regulations.

"(c) The value of the price support determined pursuant to subsection (a) shall be reduced each fiscal quarter beginning with the fifth consecutive fiscal quarter during which the resource recovery facility has maintained commercial operation at substantially the level for which it is designed and, *Provided that:* The value of such price support shall be zero by the end of the twenty-eighth fiscal quarter as measured from the first of the four consecutive fiscal quarters referenced above.

"(d) The amount of disbursements made pursuant to this section and which remains outstanding at the end of the twenty-eight consecutive fiscal quarters during which this price support loan program is utilized by the owner or operator of any resource recovery facility shall bear interest at a reasonable rate determined by the Secretary, in consultation with the Secretary of the Treasury, but in no case shall such interest rate exceed five percent, and, *Provided that:* Such interest shall not begin to accrue until the final disbursement has been made.

"(e) The terms of the agreement between the Secretary and the owner or operator of the resource recovery facility shall require full repayment of the cumulative total of the amounts disbursed by the Secretary thereunder, *Provided that:* Such repayment shall commence at a date no later than one year after the date of the last disbursement by the Secretary and shall be completed no later than the earlier of fifteen years after such date or the time at which the indebtedness incurred to acquire the resource recovery facility has been repaid, and shall provide for a repayment schedule as mutually agreed upon by the Secretary and the owner or operator of the resource recovery facility after taking into account the impact of the timing and amount of annual repayment on the economic stability of the resource recovery facility and the integrity of the financing agreements.

"(f) Price support loan agreements undertaken by the Secretary pursuant to this section are hereby expressly limited to the use and sale of recovered fuel products and electricity or steam produced by a resource recovery facility and shall not extend to the sale of other recovered materials produced by such a facility.

"(g) Notwithstanding any other provision of this section, the Secretary shall have no authority to disburse amounts pursuant to any price support loan agreement made under this section after December 1, 1994.

"(h) For purposes of carrying out the provisions of this section, the amounts of \$36,000,000 are authorized to be appropriated for the fiscal year 1981, \$67,000,000 are authorized to be appropriated for fiscal year 1982; \$93,000,000 are authorized to be appropriated for fiscal year 1983."

Mr. BRADLEY. Mr. President, this is an amendment to legislation which had been introduced on October 24. Specifically, the amendment would authorize a price support loan program for providing financial incentives for the development of municipal solid waste to energy systems. The incentive is in the form of a price support which will be

applied to each unit of fuel or energy that is actually produced from the garbage processing or conversion facility.

After a designated period of time the total amount of the price support given to the program is repayable to the Federal Government.

Mr. President, this is a proposal which is intended to authorize a program to utilize the best features of both price support and loans.

The incentive is tied to specifically the production of energy; thus, the private party working in the marketplace is still required to assume the risk of construction and operation of the garbage processing and conversion process. But once the project is operational, then a Government incentive is provided for a limited period of time to support the price of the product and make the garbage-derived energy or fuel cost competitive with conventional fuels. Anticipating that the cost of conventional fuels will continue to rise, the price support to a given project will be terminated on a date certain and the total value of the price support provided to that time by the Federal Government will be made repayable to the Government along with interest.

In this way, the repayable feature of the proposal incorporates the idea of a loan in lieu of an outright Government grant but provides the possibility of the loan being used directly to construct the garbage-to-energy facility.

Mr. President, our country is facing a very serious crisis and there is need to diversify our sources of energy supply, and we have in our country the possibility of over 129 million barrels of oil annually from the production of garbage energy systems.

I suggest that this amendment provides an adequate way to get at that supply of energy. It is built on the concept of no Government grant but a Government payment that will be repaid as the garbage energy facility becomes competitive. As the price of other energy sources rises, garbage becomes much more competitive as an energy source.

I suggest that the managers of the bill carefully look at this and respond.

Mr. Johnston addressed the Chair.

The PRESIDING OFFICER (Mr. Heflin). The Senator from Louisiana is recognized.

Mr. JOHNSTON. Mr. President, the Senator from New Jersey has put out a most interesting amendment here, the purpose of which we totally concur with. It is a complicated mechanism, involving payment to the producers of energy from garbage which I think may well be an appropriate subject on which we will want to legislate in the terms that the Senator from New Jersey has stated.

However, we have not been able to have hearings on this measure, and I think it is the kind of measure that should have hearings. I urge that the Senator give us a chance in the Committee on Energy and Natural Resources to hold hearings on this matter. I for one, and I think I speak for the committee, will look very sympathetically on the purpose of this amendment and perhaps the precise mechanism, but in any event, it should have hearings. I say that in an encouraging way to the Senator because it is a most interesting idea that I think has great promise for not only doing away with municipal garbage but producing useful energy from that garbage as well.

Mr. DOMENICI. Mr. President, I agree with the majority manager of the bill and I say to my good friend from New Jersey I recall 4 years

ago we started hearings on a bill that was aimed at trying to promote the utilization of garbage for electrical energy. I remember quite vividly that it was then said that there was enough energy to produce lights for all the homes in America. That was the equivalent if we could find a way to make this conversion. We have had all kinds of energy shortages and we have still made very few strides in converting refuse and garbage to energy.

I think the Senator's approach has great merit. I hope that the Energy Committee will immediately begin hearings.

We know that this is not a problem only in States such as New Jersey. We note that States like Idaho are concerned. Senator McClure has indicated that he would like to have people from his State testify as to the validity of this conversion and to get on with helping to see that it takes effect.

So I commend the Senator for it. I hope he will withdraw it, and I will join with Senator Johnston in urging that we have early hearings to get something to the Chamber that will make this a reality.

Mr. BRADLEY. Mr. President, I point out that in the energy bill that we are presently considering we have basically authorized over \$88 billion for synthetic fuels and after this afternoon's action a little over \$1 billion for gasohol, about \$5.5 billion for conservation, about \$750 million for geothermal, about \$50 million for renewables, about \$100 million for wind and \$475 million for solar bank, and of this virtually nothing for garbage.

I suggest that the important point to make here is that we are not banking on a new technology being developed. We have at this time in this country a number of facilities that are producing energy directly from urban solid waste. It is a known technology with a known return, a known oil equivalent.

I also suggest that because of that there is a very short time for pay-back or payout of oil equivalent amounts of energy.

I hope that the Senate will consider movement on this amendment, as it is important and in the national interest, in as speedy a manner as we have considered movement in all of these other areas.

I yield to my colleague from Massachusetts.

Mr. TSONGAS. I thank the Senator.

Mr. President, I would like to commend the Senator from New Jersey on his initiative. Judging from the reaction we just heard here with reference to the word "garbage" I would say to you that a rose by any other name would still smell as sweet. The technical term is pyrolysis, and I think if we had introduced it by that name there would have been more enthusiasm.

Mr. METZENBAUM. There is a lot of garbage in the bill now. [Laughter.]

Mr. TSONGAS. There seems to be a tendency—and I suppose it is human nature—that the more esoteric it is, the more attractive it is. Here we are dealing with oil shale, tar sands, and coal liquefaction. This is something immediate and does not seem to have the same attractiveness.

In the State of Massachusetts, there is going to be the same kind of facility privately financed in which the city of Worcester is going to provide the solid waste so that the Norton Co., which is a major user of energy, can have an infinite supply of energy. The economics

clearly are there, and we are much closer to those economics than we are to any of the alternatives we have been discussing in the last 2 days.

I would just like to commend the Senator, and I am pleased to see that Senators Johnston and Domenici are prepared to support hearings and that some time early next year this will become law.

Mr. BRADLEY. I yield to the Senator from Michigan.

Mr. LEVIN. Mr. President, I too, want to join my voice in support of this amendment. It not only will have a tremendous potential—it could have a tremendous potential—in terms of energy production but an important side effect is the reduction of municipal waste and, therefore, it has a very strong environmental flavor to it as well.

The volume of waste can be reduced by 95 percent. The waste could be reduced by 80 percent if we make greater use of waste for the production of energy. So energy production, environmental production are both the results of this amendment.

Each year the United States lives up to its deserved reputation as the most wasteful country in the world by throwing out more than 135 million tons of municipal solid waste. This waste is dumped in the oceans, dumped on the ground, dumped in landfills or openly incinerated. However it is dealt with, it creates environmental problems and effectively eliminates the possibility of reusing many valuable materials.

This waste, the product of our throw-away society, is a constant drain on world resources and energy. While little can be done about our society's disposable attitude, we can deal more effectively and efficiently with the wastes we produce. If Senator Bradley's amendment is passed, we will be encouraging the development of a technology that turns a social liability into a socially productive commodity.

The concept and objectives of municipal waste recovery are clear. First, it will dispose of waste in an efficient and environmentally sound way. The volume of waste could be reduced by 95 percent, and the weight could be reduced by 80 percent, making disposal of what remains a vastly simpler task; Second, the project should be economically sound in the long-run, eventually helping to pay for itself through fees charged for waste disposal and energy sales; Third, an energy product will be produced, helping to relieve our energy bind; and Fourth, a waste recovery plant may recycle metals and glass, conserving raw materials and additional energy.

This bill has provided billions of dollars for the production of alcohol from agricultural products. We are asking for a much smaller amount of money for the development of energy from urban waste, which we consider to be another usable resource.

Municipal waste recovery can stand alone on its merits as an energy saver and producer. It could stand on its own for its environmental considerations. One amendment which helps to achieve both of these things represents a one-two punch and that is why I take particular delight in joining Senator Bradley as a cosponsor of this amendment.

I ask unanimous consent that I be listed as a cosponsor of this amendment.

The PRESIDING OFFICER. Without objection, it is so ordered.

Mr. BRADLEY. Mr. President, I hope I can receive a commitment from the two distinguished floor managers of the bill for early hear-

ings and support of the general concept of price supports in the area of garbage as it relates to energy systems.

Mr. JOHNSTON. Mr. President, I certainly support hearings for the Senator's bill, and I support the concept of incentives, whether they are price supports or whatever the particular mechanism is. That would be a proper subject for hearings. But I think they certainly need some incentive, and price supports may be the appropriate role.

I commend the Senator for putting in the amendment and for withdrawing it as well, and I would certainly work with him to see that this matter is brought to an early and, hopefully, successful resolution.

Mr. BRADLEY. Mr. President, since the distinguished floor manager is his usual persuasive self, I will withdraw the amendment.

Mr. JOHNSTON. I thank the Senator.

The PRESIDING OFFICER. The amendment is withdrawn.

The question recurs now on agreeing to the amendment of the Senator from West Virginia.

Mr. DOMENICI. I suggest the absence of a quorum, Mr. President.

The PRESIDING OFFICER. The clerk will call the roll.

The assistant legislative clerk proceeded to call the roll.

Mr. ROBERT C. BYRD. Mr. President, I ask unanimous consent that the order for the quorum call be rescinded.

The PRESIDING OFFICER. Without objection, it is so ordered.

Mr. ROBERT C. BYRD. Mr. President, I ask for the yeas and nays on passage of the pending bill.

The PRESIDING OFFICER. Is there a sufficient second? There is a sufficient second.

The yeas and nays were ordered.

Mr. ROBERT C. BYRD. Mr. President, I suggest the absence of a quorum.

The PRESIDING OFFICER. The clerk will call the roll.

The assistant legislative clerk proceeded to call the roll.

Mr. McClure addressed the Chair.

The PRESIDING OFFICER. The Senator from Idaho.

Mr. McCLURE. Mr. President, I ask unanimous consent that the order for the quorum call be rescinded.

The PRESIDING OFFICER. Without objection, it is so ordered.

Mr. McCLURE. Mr. President, I ask unanimous consent that the amendment of the Senator from West Virginia be temporarily laid aside and that the Senator from Idaho be recognized to offer an amendment.

The PRESIDING OFFICER. Without objection, it is so ordered.

UP AMENDMENT NO. 778

Mr. McCLURE. Mr. President, I send an amendment to the desk and ask for its immediate consideration.

The PRESIDING OFFICER. The clerk will report.

The assistant legislative clerk read as follows:

The Senator from Idaho (Mr. McClure) proposes an unprinted amendment numbered 778.

Mr. McCLURE. Mr. President, I ask unanimous consent that further reading of the amendment be dispensed with.

The PRESIDING OFFICER. Without objection, it is so ordered.
The amendment is as follows:

On page 185, line 19, insert the following:

SUBTITLE K

SEC. 2010. (a) The Internal Revenue Code of 1954 is amended by redesignating section 5181 as section 5182 and by inserting in lieu thereof the following new section 5181.

"SEC. 5181. DISTILLED SPIRITS FOR FUEL USE

"(a) Notwithstanding any other provision of this Title or of any other provision of law, the Secretary, upon application, shall issue operating permits for distilled spirit plants established solely for producing, processing, storing, using, and distributing distilled spirits exclusively for fuel use.

"(b) Such application shall include the name and address of the applicant, the location of the plant, and the volume of distilled spirits anticipated to be produced. Based on such application, the Secretary shall issue within 30 days of receipt of such application said operating permit.

"(c) If, based on the application, the Secretary determines that said permit should not be issued, the Secretary shall, within 30 days of receipt of such application, give notice in writing to the applicant of the Secretary's determination; and such notice will include, in detail, the circumstances resulting in the Secretary's determination.

"(d) No determination made pursuant to subsection (c) of this section shall prejudice any further application for permit made by the same individual, individuals or organization whose application for permit had previously been denied.

"(e) If, within 30 days from the Secretary's receipt of said applications, said permit has not been received by the applicant and said notice of permit denial has not been received by the applicant, the applicant shall assume said permit has been issued and may lawfully commence operation.

"(f) Distilled spirits produced under this section shall not be withdrawn, used, sold, or disposed of for other than fuel use. Distilled spirits produced under this section shall be rendered unfit for beverage use by addition of substances which will not impair the quality of the spirits for fuel use. Such substances must be added prior to withdrawal from the premises of a distilled spirits plant.

"(h) For purposes of this section, the term 'distilled spirits' does not include distilled spirits produced from petroleum or natural gas.

"(i) Notwithstanding any other provision of this Title or of any other provision of law, no bond shall be required for the production, processing, storage, use, or distribution of distilled spirits manufactured for fuel use."

"(j) If more than one application is submitted by a person in any one calendar quarter, the provisions of this section shall apply only to the first application submitted by such person in such quarter." For purposes of this provision, a corrected or amended application shall not be considered as a second application, and the 30 day period referred to in subsection (b) shall commence with receipt of the said corrected or amended application."

(b) Section 5601(a) of the Internal Revenue Code of 1954 is amended by adding the word "or" after paragraph 14 and by adding a new paragraph 15 to read as follows:

"(15) UNAUTHORIZED WITHDRAWAL, USE, SALE, OR DISTRIBUTION OF DISTILLED SPIRITS FOR FUEL.—Withdraws, uses, sells, or otherwise disposes of distilled spirits produced under section 5131 for other than fuel use;"

(c) Section 5214(a) of the Internal Revenue Code of 1954 is amended by striking from paragraph (10) the period and inserting in lieu thereof a semicolon and the word "or" and by adding a new paragraph (12) to read as follows:

"(12) free of tax in the case of distilled spirits produced under section 5181."

(d) Section 5004(a) (2) (B) of the Internal Revenue Code of 1954 is amended by striking out "or (a)," and inserting "(a) or (12)."

(e) Section 5005(d) of the Internal Revenue Code of 1954 is amended by striking out "or (A)," and inserting "(a), or (12)."

(f) Section 5025 of the Internal Revenue Code of 1954 is amended by redesignating paragraph (m) as (n) and by adding a new paragraph (m) to read as follows:

"(m) **DISTILLED SPIRITS FOR FUEL USE.**—The processing of distilled spirits exclusively for fuel use produced under section 5181 shall not be deemed to be rectification within the meaning of sections 5021, 5081, and 5082."

(g) Section 5083 of the Internal Revenue Code of 1954 is amended by adding a new paragraph (16) to read as follows:

"(16) Processing distilled spirits for fuel use, see section 5025(m)."

(h) The table of sections for subchapter B of chapter 41 of the Internal Revenue Code of 1954 is amended by redesignating section 5181 as section 5182 and by inserting after section 5180 the following:

"Sec. 4181. Distilled spirits for fuel use."

Mr. LONG. Mr. President, reserving the right to object, is this an amendment to amend the Internal Revenue Code?

Mr. McCURE. Mr. President, I would say to the Senator from Louisiana yes, it is. It is the amendment which the committee considered, did not enact in the committee, recommended the amendment, and it appears on page 159 and 160 of the committee report.

Mr. LONG. Mr. President, I have looked at that amendment of the committee, since it is in the committee report, and I am really not qualified to pass judgment on the merits of the amendment, but of this much I am convinced: That that amendment is clearly within the jurisdiction of the Committee on Finance, and we would like the opportunity to look at it and study it, and give the Senate the benefit of our judgment.

After this bill is passed, there will be, I believe, one other important appropriation bill to pass, and then we will move on to the energy tax bills next week. The windfall profits tax legislation will be before this body, and it will be perfectly in order and I would have no objection to the Senator offering the amendment on the windfall profits tax bill.

Meanwhile, I would like to urge our staff to study the amendment, and urge Senators on the Finance Committee to look at it, so we could give the Senate the benefit of our judgment. It may very well be that I will favor the Senator's amendment. I am not prepared to pass now on the merits of it; all I can say is that it is clearly within our jurisdiction, and we would like to discharge our duty to the Senate; and I would hope the Senator would not insist on the amendment tonight, but consider offering it as an amendment to the windfall profits tax bill.

Mr. McCURE. I thank the Senator from Louisiana for his comments.

Mr. President, I might say just this much about the amendment: This amendment does deal with a section of the Internal Revenue Code that deals with the issuance of permits by the Bureau of Alcohol, Tobacco, and Firearms, a bureau within the Department of the Treasury, with respect to the permits issued to those who produce alcohol. It is in the Internal Revenue Code because alcohol is heavily taxed, and that is the regulatory regime for the production of alcohol.

This amendment which I propose does not affect the revenue aspect. It affects only the procedural aspects of the granting of such a permit. We have found in practice that while the BATF says it is going to expedite the handling of these permits, the people who are out there actually trying to get into the business of producing alcohol, many of them very small producers, many times on the farm, for their own consumption or that of their neighbors, will experience some difficulty

in getting their permits, because the BATF is used to dealing with moonshine bootleggers, I guess, and they are afraid somebody is going to get away with a gallon of moonshine and they will drink it instead of putting it in their tractor. So they have been very slow about granting these permits.

It was my desire, in dealing with this legislation dealing with the production of alcohol, to deal with one of the major impediments to the small unit production and what that could contribute.

I appreciate the suggestion that has been made by the Senator from Louisiana. We have discussed this. Of course, I would like to have it included in this measure, but I understand what the Senator from Louisiana is saying. With the assurance that it will get that kind of treatment, if the manager of the bill on behalf of the majority has no objection, I would withdraw the amendment, and I ask for that concurrence on his part simply because this was considered by the committee, was recommended by the committee, and was offered tonight on behalf of the committee.

Mr. JOHNSTON. Mr. President, I certainly concur with the suggestion of my senior colleague from Louisiana and the Senator from Idaho. I think that is the appropriate way to deal with this amendment.

Mr. McCLURE. Again, I thank the Senator from Louisiana for his consideration.

Mr. LONG. I thank the Senator from Idaho.

I may say that the Senator from Kansas (Mr. Dole), who is a member of the Finance Committee, is equally as much interested in gasohol as any Senator in this body. I believe all of us who represent the States which produce a lot of farm commodities or have a lot of forestry products are very much interested in moving forward with gasohol, because it is a recurring source of energy; it is there year after year and it is not depletable.

So we think that it would have tremendous prospects and we put a lot of emphasis on it in the windfall profits tax bill. We have a lot of tax credits for it. I believe the Senator's purpose is to expedite the program of producing gasohol and I believe he can rely on a sympathetic ear for his amendment when he offers it on the other bill.

Mr. McCLURE. I will be happy to yield to the Senator from Kansas, because I do know of his interest in this subject.

Mr. DOLE. I just want to concur in the statement of my chairman. We cannot accept it yet, because we do not have the bill on the floor. But I would think the Senator will find us a very understanding group. Notwithstanding his views on other portions of the windfall profits tax bill.

Mr. McCLURE. Mr. President, we have spent a great deal of time in this legislation trying to further alcohol production. We have done a number of things in a number of areas trying to make it possible for us to move alcohol from theory into the fuel tanks.

One of the major deterrents is this procedural hangup. If we were not going to be moving very soon to an appropriate vehicle for such legislation, I would be pressing harder to have it considered here tonight on this legislation. But since we will be moving very soon to other legislation where the chairman of the committee has assured me, at least, of a sympathetic hearing, Mr. President, I ask unanimous consent to withdraw the amendment.

The PRESIDING OFFICER. The amendment is withdrawn.

GASOHOL: ITS TIME HAS COME

Mr. CHURCH. Mr. President, rampant inflation, our increasing trade deficit, gasoline lines, and growing numbers of citizens unable to pay spiraling heating costs, are all symptoms of an energy crisis with which we must come to grips.

A crash program for developing synthetic fuels is one way to reduce our country's dependence on imported oil. Yet, the full potential of this ambitious program will not be realized until the turn of the century. With spot shortages of gasoline, diesel, and heating oil already occurring with alarming frequency, we must find energy prescriptions that will get us through the next two decades. The stakes are tremendous.

Shortages of diesel fuel which occurred in Idaho last August are illustrative of the fragility of the situation; the summer drought brought Idaho severe forest fires and an early wheat harvest, placing additional strains on an already short supply of diesel fuel. Had not late August brought with it cooler and damper weather, diesel shortages could have become so severe as to have resulted in the loss of large quantities of unharvested wheat and other crops.

Stretching available fuel supplies by mixing into our gasoline alcohol from renewable resources could significantly reduce the potential occurrence of such disastrous events. That is why I sponsored title II for incorporation in this bill, the Gasohol Motor Fuels Act of 1979, along with my distinguished colleagues, the Senator from Louisiana, Mr. Johnston, the Senator from Indiana, Mr. Bayh, and 17 other cosponsors.

The most encouraging aspect of the alcohol fuels' technology is that it is not a pipedream—it is in fact an existing technology waiting to be tapped. The frustrating part is that, although it is available, it has yet to be used. While the recently published "Report of the Alcohol Fuels Policy Review," prepared by the Department of Energy, characterized alcohol fuels as "the only alternative fuel commercially available now, and the only one likely to be available in quantity before 1985," we find the actual production of alcohol from renewable resources just a tiny fraction of what it needs to be.

The minuscule use of alcohol fuels, to date, is neither indicative of the lack of entrepreneurial interest nor to the lack of public acceptance of the fuel. To the contrary, witness after witness at hearings I conducted in both Boise, Idaho, and Washington, D.C., expressed a tremendous amount of enthusiasm for the increased production and use of alcohol fuels. One Idaho witness indicated that a poll he had just completed showed that "almost to a man, the farmers of Idaho are willing to commit, on a long range basis, a portion of their production for gasohol."

General Motors testified that most of their gasoline engines would operate satisfactorily on gasohol and that they would be able to solve whatever problems that might arise. GM, Ford, and Volkswagen have already responded to such a market demand in Brazil, where a highly successful alcohol production program will put 1.7 million alcohol-powered car on the road over the next 5 years.

With such enthusiasm, wherewithal, justification and need, there is absolutely no reason why an alcohol fuels program should not pro-

ceed with the greatest of speed. As another witness at the Boise hearing declared: "those farmers who fired the first shots at Lexington and Concord have the ability today to deliver a salvo for energy independence. Our future is tied to alcohol; by the jug, if we despair, or by the bushel if we succeed."

The production goals of the gasohol title to S. 932 subscribe to the ambitious "bushel" approach. As they must if we are to overcome the anticipated energy supply shortfalls of the 1980's. The loan guarantees and purchase agreements authorized in title II are a small price to pay for the increased energy independence such an investment can provide. With these assurances of a guaranteed market for alcohol, producers will be less hesitant to move into the production of alcohol, made from renewable resources. With such an inducement, there is every reason to believe that we can attain our 1982 goal of 920 million gallons of alcohol, and by 1990 have 10 percent of all our motor fuel made from this domestically-produced alcohol.

In addition to the financial incentives, it is essential that an alcohol fuels program be properly directed and coordinated if the production goals are to be attained. To date, alcohol programs have been dispersed between many different agencies with negligible results. The gasohol title provides for an independent Office of Alcohol Fuels to be established within the Department of Energy to coordinate the production goals of the program.

By creating such an office, greater emphasis can be placed on alcohol fuels' production in the Energy Department's order of priorities. The title, at the same time, permits the Department of Agriculture to deliver the program benefits to the agricultural community through the agricultural extension service and soil conservation service. In this manner, the Office of Alcohol Fuels will make maximum utilization of existing agencies while providing, at the same time, the needed program coordination from one central source.

I urge Senators, many of whom are cosponsors of this and other alcohol fuels' legislation, to actively support the creation of this urgently needed, centrally coordinated alcohol fuels' production program. The billions of gallons of alcohol that will be produced through this program will greatly assist in avoiding spot shortages of gasoline during the next few years; it will stimulate competition among gasoline suppliers, it will provide markets for agricultural products, including surplus potatoes, sugar, sorghum, corn, wheat, and many other crops; it will provide relief for the solid waste problems of urban areas, and it will, as a new domestic energy source, reduce our heavy reliance on imported oil. With the program's potential for providing so many benefits to all parts of this country. I ask that title II, the Gasohol Motor Fuels Act of 1979, be approved.

Mr. President, I request that a section-by-section analysis of title II be included here in the Record.

The material follows:

TITLE II—GASOHOL

Sec. 201. The name of this title is the 'Gasohol Motor Fuel Act of 1979'.

Sec. 202. Findings.

Sec. 203. Purposes.

One of the primary purposes of this bill is to achieve the displacement of imported foreign oil.

SEC. 204. General Definitions.

This Title is concerned with the production of alcohol from renewable resources, which is defined to mean any substance which is a source of energy, and which is available in an inexhaustible supply in the foreseeable future, such as timber, crops and crop waste, animal and timber waste, cellulose waste, food processing waste, municipal and industrial waste, sewage, sludge, oceanic and terrestrial plants, and other organic matter. This definition therefore excludes petroleum, natural gas, coal and other fossil fuels as feedstocks for alcohol fuel projects qualifying under this title. Petroleum and natural gas production of alcohol, or synthetic alcohol production, is a well known and well established industry in the United States. Coal to methanol production involves capital formation problems similar to other large coal conversion facilities, and therefore the Committee has decided under the aegis of the Synthetic Fuels Corporation. The Committee intends that the term "alcohol fuel project" will include distilleries that are retrofitted to produce alcohol fuel, distilleries that will use unused capacity to produce alcohol fuel, and other facilities that have the opportunity to produce alcohol fuel.

SUBTITLE B—ESTABLISHMENT OF THE OFFICE OF ALCOHOL FUELS

SEC. 210. This section requires the President to establish the Office of Alcohol Fuels Production as an independent office in the Department of Energy. The office will be headed by a Director, as provided in this section.

SEC. 211. This section provides for the responsibility of the Director over the terms and conditions of the contracts for financial assistance and the selection of recipients thereof. The Secretary shall have general supervision over the Director for these matters. For all other matters, the Director shall be subject to the Secretary. In no case may the Secretary delegate his responsibility under this section to another office of the Department.

SEC. 212. This section requires the Office to submit a separate report in the annual budget submission of DOE. It also requires the Office to submit copies of all of its extradepartmental commitments on legislation to the Congress.

SEC. 213. This section requires the submission of an annual report. On or before September 30, 1990, the Corporation is required to submit a report on the status of alcohol fuel projects and a plan for the termination of the Office. Rather than require the Office to terminate by a date certain, this section would require the Office to first prepare a plan for termination which the Congress could then consider in evaluating the subsequent utility of this Office.

SEC. 214. The Director, acting through the Secretary, is required to consult with named heads of other Departments and agencies, or their appointed representatives, and to coordinate the programs under the Director's responsibility with other programs within the Department of Energy and in the named Departments and agencies.

This requirement focuses the efforts of the Federal Government in the Department of Energy and thereby centralizes Federal policy for the purpose of achieving the national goal established herein. Each Department mentioned has either regulatory or programmatic responsibilities directly affecting alcohol fuel production; this section does not affect the responsibilities or authorities which these agencies are now utilizing. However, consistent with the DOE Organization Act; Public Law 95-91, this centralizes Federal energy policy for alcohol fuels in the Department of Energy.

SEC. 215. The Secretary is required to make available public information relative to the production of alcohol fuel and construction of alcohol fuel plants, which is at his disposal.

SEC. 216. The Secretary is required to submit a report on incentives for alcohol motor fuel to the Congress, within 120 days.

SUBTITLE C—ALCOHOL FUEL PRODUCTION

SEC. 220. The President shall seek to achieve a national goal of a volume of alcohol fuel from renewable resources equal to 10 percent of the estimated gasoline consumption in the United States by 1990. As a first step in achieving this goal, the President shall achieve a production level as high as is technically and economically feasible, but at least 60,000 barrels per day of alcohol fuels from renewable resources, by 1982.

SEC. 221. The Office shall solicit proposals from the general public and, if insufficient proposals are received, it shall then seek to negotiate proposals with qualified applicants. In the process of selecting recipients for financial assistance,

the Office shall give a first priority to achieving the national production goal for 1982 of, at a minimum, 60,000 barrels per day. As a second priority, the Office shall seek to assure the availability of new technologies which will be able to utilize new feedstocks for the production of alcohol or which will have the capability of utilizing multiple feedstocks, at least some of which are not now considered to be commercially usable. This second priority is of importance because new feedstocks will be needed for use in order to achieve the national goal for alcohol fuel production. The national goal will require the conversion of a large volume of renewable resources. In order to achieve this goal, new feedstocks, such as municipal solid waste, must be utilized.

By September 30, 1982, the Office shall submit a comprehensive strategy for the achievement of the national goal for alcohol fuel production and report on the feasibility of achieving this goal.

SEC. 222. The Office is directed to solicit proposals, beginning within 6 months of the date of enactment of the Title. The Office is also required to set up a two-step procedure for handling and expediting applications for financial assistance. This expeditious procedure will require that all DOE Offices, Agricultural Extension Services Offices, and Energy Extension Services Offices, or other Federal Offices designated by the Director, shall be utilized for the distribution and collection of applications for financial assistance. After an applicant correctly files his necessary forms, the Office will then review the form according to previously issued guidelines and regulations, and certify whether or not the applicant can proceed to negotiations for financial assistance. This certification procedure shall be completed within 90 days. After that certification, the Office shall enter into negotiations with the applicant with the objective of providing whatever financial assistance the Office can make available.

In cooperation with the Department of Agriculture and the Energy Extension Service, the Office shall provide technical assistance and educational projects.

SUBTITLE D—FINANCIAL ASSISTANCE

SEC. 230. This section authorizes the Office to issue financial assistance, and requires certain terms and conditions thereof.

This section also requires that one-third of the amount authorized for contractual obligations shall be used for small alcohol producers. Small alcohol producers are defined elsewhere in the bill to be plants producing less than 2 million gallons of alcohol annually. This would, for example, include plants supplying typical farmer cooperatives.

The Director is required to give priority to those alcohol fuel projects which will displace more motor fuel than they consume in the production of the alcohol fuel. The Director shall establish guidelines for his or her use in making this determination of priority and these guidelines should be updated to reflect the state of the art of alcohol fuel projects. In establishing the guidelines, the Director may establish categories based on size and types of alcohol fuel projects. In utilizing the guidelines the Director shall seek recipients so as to achieve the guidelines and thereby achieve an increasing substitution of alcohol fuel for motor fuel derived from petroleum.

SEC. 231. Authorizes the Office to issue loan guarantees.

SEC. 232. Authorizes the Office to issue price guarantees.

SEC. 233. The Office is authorized to enter into agreements to guarantee the purchase of alcohol fuel produced by an alcohol fuel project. Therefore, if an applicant wishes, the Federal government will be in the position of a purchaser of last resort for his alcohol fuel.

SEC. 234. The Office is allowed to acquire an alcohol fuel project only by foreclosure pursuant to a contract for loan guarantee assistance under this Title. This title does not authorize the Office to operate any project. The Office shall seek to dispose of the alcohol fuel project in as expeditious a manner as possible and pursuant to existing law. In the process of disposing of the project, the Office shall seek to assure that the project will continue in operation where feasible, and will result in the least adverse impact to the host community.

SEC. 235. The Office may charge up to a one-percent fee for financial assistance.

SEC. 236. The Secretary of Treasury may sell any notes, bonds, or other evidences of indebtedness which the Office may own, pursuant to this Title.

SEC. 237. The provisions for the treatment of patents made or conceived in the course of or under financial assistance agreements pursuant to this Title reflects the patent treatment which will be given by the Synthetic Fuels Corporation in the program under that authority. The intent is to give alcohol fuel

projects the same treatment as will be derived by producers of synthetic fuels pursuant to financial assistance from the Synthetic Fuels Corporation.

SUBTITLE E—AUTHORIZATION AND FUND

SEC. 240. The Office is authorized to incur obligations or make commitments not to exceed \$1.2 billion in the aggregate. This authority does not encompass any provision for roll-over of any previously obligated amount; therefore, the total program authorized cannot exceed this sum. The Committee provided this amount of contractual authority which must be provided in order for the Office to support the additional alcohol fuel production which will be necessary to achieve the minimum 1982 goal of 60,000 barrels per day. DOE estimates that 20,000 barrels per day of alcohol fuel will be produced in 1982 under the present Federal system of incentives.

SEC. 241. The fund is authorized to a level of \$400 million. This should be sufficient budget authority to assure bankers and investors that the Office will be able to provide for all contingencies. In addition, the Director is authorized \$800 million in borrowing authority to cover the contractual obligations he is authorized to write.

In the event that the Synthetic Fuels Account is created, pursuant to the enactment of Title I of this bill, the above authorizations, to whatever extent they have to been exercised, will no longer be available. In lieu thereof, \$1.2 billion, less any other amount already appropriated, pursuant to this Title, will be transferred to the fund. Therefore, if both the Synthetic Fuels Account and the fund are created in the same Act. as is contemplated, no appropriations will be required pursuant to the authorized amounts contained in subsections (d) and (e): a simple transfer of the entire amount authorized in (f) will occur from the Account to the fund.

SUBTITLE F—UTILIZATION OF EXCESS SUGAR

Section 250, Subsection (a) deals with the sugar stocks obtained by the Commodity Credit Corporation during crop years 1977 and 1978. The CCC is directed within 3 months after the date of enactment to make every reasonable effort to sell that surplus sugar in accordance with 7 U.S.C. 1427, which enumerates the authorities and restrictions on the CCC sale of surplus commodities.

After that 3 month period, the CCC is directed to sell the remaining sugar for the restricted use of processing into ethanol for use in motor fuel or for livestock feed. The restrictions in 7 U.S.C. 1427 regarding the price for which the sugar is sold do not apply in this post-three-month effort to sell the sugar. The sugar would be sold by competitive bid without regard to the support price for sugar.

Subsection (b) deals with sugar surpluses from crop years after 1978, treating them as under subsection (a) except that the CCC has one year from the time of acquisition to sell these stocks under normal procedures before they are directed to sell the stocks for processing into ethanol for use in motor fuel or for processing into livestock feed.

Subsection (c) is triggered only if attempts at selling an annual sugar crop surplus under subsection (a) or (b) for the restricted uses of processing into ethanol for use in motor fuel or as a livestock feed have continued for the applicable period but failed to result in substantial sales of that sugar surplus.

Subsection (c) requires the CCC to enter into processing agreements to convert the sugar to ethanol and to make this ethanol available for purchase for use as a motor fuel in motor vehicles owned or leased by the Federal government.

Subsection (d) addresses the extent to which 7 U.S.C. 1427 applies to this section.

SEC. 260. USE OF GASOLIN IN FEDERAL MOTOR VEHICLES

The intent of this section is clear. The Secretary will define the term "gasohol" including the percentage blend of alcohol in gasoline that will constitute gasohol for purposes of this section.

SEC. 270. MOTOR VEHICLE STUDY

The intent of this section is clear.

SEC. 280. PRIORITIES

Section 401 of the Natural Gas Policy Act of 1978 (Public Law 95-621) grants a priority for supply of natural gas in the event of a supply curtailment to any

"essential agricultural use", as defined in that section. This section provides that the use of natural gas in sugar refining for production of alcohol is an essential agricultural use. Similarly, this section provides that the use of natural gas for agricultural production on set-aside acreage or diverted acreage is an "essential agricultural use", where the acreage is devoted to the production of any commodity for conversion into industrial hydrocarbons and blending with gasoline or other fossil fuels for use as a motor or industrial fuel.

SEC. 290. STANDBY AUTHORITY

This section amends section 4 of the Emergency Petroleum Allocation Act of 1973 to require the President to exercise standby authority if he finds that significant quantities of alcohol suitable for use in motor fuel are not being used for that purpose because of an unavailability of refined petroleum product in which to blend to alcohol.

His standby authority is to allocate crude oil to refiners of petroleum products and to petroleum product marketers where such special allocation would result in the blending of the available alcohol into motor fuels so as to stretch supplies of motor fuel.

The definition of alcohol adopted for purposes of this section includes any alcohol produced from any source, whether renewable or not, so that, for example, methanol made from coal would qualify under the definition of alcohol.

Mr. DOMENICI. Mr. President, what is the pending business?

The PRESIDING OFFICER. The pending question is on agreeing to the amendment of the Senator from West Virginia.

Mr. DOMENICI. Mr. President, I ask unanimous consent that that amendment be temporarily set aside so that an amendment that I will send to the desk can be offered.

The PRESIDING OFFICER. Without objection, it is so ordered.

UP AMENDMENT NO. 779

Mr. DOMENICI. I send to the desk and unprinted amendment.

The PRESIDING OFFICER. The amendment will be stated.

The second assistant legislative clerk read as follows:

The Senator from New Mexico (Mr. Domenici) proposes an unprinted amendment numbered 779:

On page 296, line 12—

Mr. DOMENICI. Mr. President, I ask unanimous consent that further reading of the amendment be dispensed with.

The PRESIDING OFFICER. Without objection, it is so ordered.

The amendment is as follows:

Page 296, line 12, strike the parenthetical clause beginning, "except", through line 15 ending, "capacity)."

Page 296, line 19, strike the parenthetical clause beginning, "(except", through line 22 ending, "capacity)."

Page 296, line 24, insert new subsection (3) as follows,

"(3) inserting "and multiple geothermal project units at a site with a total maximum of not more than 140 MWe capacity" after the matter inserted by subsection (1) and after matter inserted by subsection (2).

Mr. DOMENICI. Mr. President, this amendment inserts on page 296 of the bill a separate and new section providing for multiple geothermal project units at a single site, and permits a total of not more than 140 megawatt capacity for that particular and specific kind of project. We have increased the size in the main bill, in the body of the bill, and I did not want to raise that to 140 megawatts. But there are certain projects contemplated that need between 120 and 140 megawatts, and they would be multiple units on a site.

In section 548 of S. 932 the Committee on Energy and Natural Resources amended section 210 of The Public Utility Regulatory Policies Act of 1978. The amendment extended the regulatory exemption of geothermal facilities from 30 MWe to 80 MWe. The reason for the 30 MWe exemption from utility regulation in the PURPA legislation was to encourage the development of geothermal resources by private resource developers. The limit of 30 MWe in PURPA was insufficient to cover even the smallest facilities which are now being contemplated. The present state of the art is such that a single geothermal unit is at least 55 MWe. By extending the regulatory exemption to 80 MWe the committee took single unit facilities into account, but failed to cover the more likely instance where two unit facilities are contemplated.

Now, my amendment would extend the exemption to 140 MWe to cover those private developers who wish to build two unit facilities and it would also cover several plants presently being constructed at the Geysers in California, which are 135 MWe.

Who are these private developers and why do they need such an exemption? These private developers are mining and drilling concerns who wish to enter into geothermal development and have the unique expertise to do so. They need this exemption because if they do not have it they will become a fully regulated concern once they begin to produce geothermal power. They will not pursue geothermal development if their entire operations are to become regulated under utility regulations.

Who will protect the energy consumers? Let me point out that these developers do not wish to market their geothermally produced energy. They will sell that energy to already regulated utilities. In that way the guarantee that power will be sold at a reasonable rate is made because the power can only be bought if it is reasonably priced.

Thus, I am offering a separate section. I ask that the floor manager on the majority side and the distinguished Senator from Idaho (Mr. McClure), the prime mover of the geothermal section, accept my amendment.

I have constructed it in such a way that if we have to drop it in conference because of the size, we will do no harm to the basic provisions in the bill. It can be dropped separately and still the new limits set in the bill can be retained.

I would like to do it this way and see if there is serious objection. If there is, I am willing to relinquish. If not, I believe that there are certain projects in the country that might get built if we will permit this size, and they would be clusters and multiple units on a single site.

Mr. JOHNSTON. Mr. President, I do have serious misgivings about the exemption for a 140-megawatt cluster of geothermal projects to be exempted under the Federal Power Act. However, the Senator does make a point that this is a detachable amendment which may be separately dropped in conference if, indeed, it does spark the kind of opposition which I think is possible. But I think it will be an appropriate matter to consider in conference and to have the various parties let us hear from them between now and the time of the conference.

In the spirit that the Senator from New Mexico has offered the amendment, that is, to take it to conference with the understanding

that it may spark great opposition which would require its dropping, with that understanding, Mr. President, we will accept the amendment.

Mr. McCLURE. Mr. President, I want to express my appreciation to the Senator from New Mexico for having formulated the amendment in the manner in which he has. There was my concern that if it were not as a separate amendment, it might very well cloud the effort which we had already made. I appreciate the fact that he has drawn it in this manner.

I echo the sentiments expressed by the majority floor manager of the bill. I am pleased to concur in the acceptance of this amendment and take it to conference.

Mr. DOMENICI. Mr. President, I am most appreciative of the consideration of the Senator from Idaho. I know of his hard work in preparing the geothermal section and his genuine interest in seeing that kind of energy move ahead in our country.

My motives, as the Senator knows, are clear. I think this size is needed for clusters. I am pleased that the Senator will support me.

Mr. President, I move adoption of the amendment.

The PRESIDING OFFICER. Without objection, the amendment is agreed to.

Mr. DOMENICI. Mr. President, I move to reconsider the vote by which the amendment was agreed to.

Mr. McCLURE. Mr. President, I move to lay that motion on the table. The motion to lay on the table was agreed to.

Mr. ROBERT C. BYRD. Mr. President, as we conclude debate on this omnibus energy production bill, the importance of this legislation cannot be overemphasized. The Senate has fashioned a response to the energy supply crisis. The number of measures to increase production of domestic energy resources and to conserve energy which are included in this bill will serve as the best national insurance policy against OPEC price increases and supply shortages. Some of these measures will afford short term energy savings; others will set in motion the machinery to develop over the long run our own plentiful domestic energy resources. Together, these initiatives will lessen our dangerous dependence on foreign oil. This must be our first priority.

Current events underscore the immediate need to develop our own energy resources.

The potential loss of oil imports from Iran and the large OPEC price increases we have recently witnessed demonstrate our vulnerability. Moving toward energy self-sufficiency is more critical than ever.

I want to congratulate and commend the distinguished chairman of the Energy Committee for his outstanding leadership on this bill. The tireless efforts of the distinguished Senator from Louisiana (Mr. Johnston) and the distinguished Senator from New Mexico (Mr. Domenici), who managed this bill, must be commended. Their valuable expertise guided this legislation through committee and through this sometimes heated debate and they deserve congratulation.

Strong opinions on the Government's role in the development of synthetic fuels were aired during this debate. Some members believed that the Federal Government's participation in this effort should be minimized, with private industry taking the lead in the development of synfuels from coal and oil shale. Those who held that position are to be respected and I would hope that their concern for the direction of

the synfuels program will continue. In particular, I must commend the distinguished chairman of the Banking Committee for his outstanding work and cooperation on this legislation. The complexity of these issues demanded the expertise of many Senators in a bipartisan effort to forge this legislation.

I believe we have created a blueprint for this Nation's energy security. First we have created a synthetic fuels corporation for the purpose of guiding and supporting private industry investment in this initiative. This new financing institution will undertake the responsibility of administering the Federal financial aid which will be necessary to encourage the construction of commercial scale synthetic fuels plants. This unique undertaking—the development of oil substitutes from coal, oil shale, and biomass—will require the private investment of billions of dollars. The enactment of this legislation will provide the evidence of national commitment to make synthetic fuels a reality. It is an important indication to the financial community that the risks entailed in such an enterprise will be worthwhile.

This bill also provides the authority to appropriate the funds which the Senate approved earlier to get the synthetic fuels program underway. The \$20 billion provided in the Interior appropriations bill is complementary to this legislation. This would allow for the construction of a number of synthetic fuel plants, which will demonstrate the commercial feasibility of a variety of technologies. This will be accomplished with a minimum of Federal expenditure through a diverse program of price and loan guarantees, direct loans, joint ventures, and as a last resort, direct Government investment. Successful production of synthetic fuels will be realized with this type of comprehensive committed effort.

The Senate adopted provisions related to the development of alcohol fuels made from renewable resources in title II of this bill. A reasonable framework for stimulating both small and large alcohol fuel plants was arrived at between the chairman and members of the Energy Committee, and the chairman and members of the Agriculture Committee. Under S. 932 as passed, the Department of Energy will be responsible for the development of large ethanol plants, or methanol from wood plants of substantial size.

The Department of Agriculture will oversee small on-farm or self-sufficient alcohol facilities. Farmers are likely to use most of the output of the small facilities themselves, so the USDA is the appropriate body to be involved with these small producers.

Senator Talmadge has worked well with Senator Jackson on the resolution of the jurisdictional problems related to gasohol, and his hard work in this area is to be commended.

The bill also enacts a far-ranging conservation program which will provide a variety of financial incentives to consumers to install conservation equipment. Conservation may be our best energy resource in the short term and significant energy savings can be achieved if the proper encouragement is provided. The combination of loans and grants which will be available to property owners and renters will allow significant investment by citizens of all economic means. Such investment in conservation will effectively combat rising energy costs and fuel shortages.

Mr. President, this legislation is momentous and urgently needed. Throughout debate this week, we have crafted a national program to

accelerate the development of domestic energy supplies. There will be no more important vote which can be cast to insure this Nation's strategic and economic security.

I urge my colleagues' support of this critical legislation.

UP AMENDMENT NO. 780

Mr. ROBERT C. BYRD. Mr. President, I withdraw my amendment and send an amendment to the desk.

The PRESIDING OFFICER. The amendment will be stated.

The assistant legislative clerk read as follows:

The Senator from West Virginia (Mr. Robert C. Byrd), for himself and Mr. Glenn, proposes an unprinted amendment numbered 780.

Mr. ROBERT C. BYRD. Mr. President, I ask unanimous consent that further reading of the amendment be dispensed with.

The PRESIDING OFFICER. Without objection, it is so ordered.

The amendment is as follows:

On page 83, between lines 9 and 10, insert the following new subsection:

"(d) Thirty days after enactment of this Title, the Secretary of Energy on behalf of the corporation and pursuant to the authorities granted in this Title, shall make a solicitation for commercial scale methanol from coal plants which shall be reviewed and acted upon by the corporation pursuant to this title.

Mr. ROBERT C. BYRD. Mr. President, my intention in offering this amendment with my distinguished colleague, Senator Glenn, is to insure that the production of methanol from coal is given early and certain consideration in the synthetic fuels program established by title I of S. 932.

As you know, title II of this measure provides a program for assistance to projects for the production of alcohol fuels from renewable resources. For the most part these projects assisted by title II will be relatively small and will produce an alcohol for direct blending with gasoline.

The production of methanol from coal will also offer a very attractive source of high-value alcohol fuels. The projects involved, however, are expected to be larger, more sophisticated, and more costly. They are, therefore, best assisted by the Synthetic Fuels Corporation established in title I which has far more extensive financial resources and better ability to deal with the financial complexities of large investments.

I wish to be certain, however, that the Corporation is well aware of the congressional intent that this form of alcohol production will be an important objective of the Corporation and that this technology will be given early and specific consideration.

My amendment requires an early solicitation of proposals for methanol projects for consideration of the Corporation.

Does the manager of the bill share my objection and my understanding of this amendment?

Mr. President, this amendment has been discussed with the managers of the bill, and I hope they will support it.

Mr. JOHNSON. Mr. President, I can assure you that it is the firm intention of the committee that the Corporation is empowered and expected to give full consideration and assistance to acceptable proposals for methanol projects using coal.

The amendment offered by the majority leader insures that such proposals will be invited and the committee expects that if such proposals are viable the Corporation will proceed with financial assistance expeditiously.

Methanol offers an opportunity for an inexpensive, clean burning fuel which can be especially valuable in displacing scarce heating oil and diesel fuel at an early date. It is also an option which is not limited by raw materials and which could be expanded to several longer term applications such as fuel cells.

I commend the majority leader for lending this additional emphasis to an important alternative, and I reemphasize the committee's expectation that methanol from coal be an important objective of the Corporation.

Mr. GLENN. Mr. President, it pleases me greatly to cosponsor this amendment with the distinguished majority leader, Senator Robert C. Byrd, and I wish to associate myself fully with his remarks.

It is important to recognize that one of our major near term and intermediate term energy problems is going to be a shortage of liquid fuels. We have already seen evidence of the impact of such shortages whenever we find ourselves waiting in a gas line. This amendment requires that the Synthetic Fuels Corporation give explicit recognition to this problem by assuring that early consideration be given to an award for financial assistance for at least one commercial scale methanol-from-coal plant under the synfuel demonstration program. Indeed, it should be the Corporation's objective to put such a plant on line as soon as possible.

Such plants will provide us with the technical, regulatory, and financial facts we will need to better understand the problems associated with the commercialization of this technology. When those problems are worked out, we will not only be in an excellent position to make good use of high-sulfur eastern coal while reducing the problem of air pollution from sulfur dioxide, but we will have taken a giant step toward increasing our production of liquid fuels without further dependence on imported oil.

Mr. DOMENICI. Mr. President, I join with the majority manager of the bill and associate myself with his remarks.

I commend the Senator from West Virginia for bringing this matter to our attention. I believe it adds significantly to the bill.

I might just say in passing, the bill has been pending long enough. I am glad we are going to get it passed.

Mr. ROBERT C. BYRD. I thank the distinguished Senator.

The PRESIDING OFFICER. Without objection, the amendment is agreed to.

Mr. ROBERT C. BYRD. Mr. President, I earlier asked for the yeas and nays on passage of the bill. I have forgotten what we are going to vote on is a motion to concur in the House amendment with an amendment in the nature of a substitute.

I ask that the yeas and nays on passage of the bill be vitiated.

The PRESIDING OFFICER. Without objection, it is so ordered.

Mr. ROBERT C. BYRD. I ask unanimous consent that it be in order to order the yeas and nays on the motion at this time.

The PRESIDING OFFICER. Without objection, it is so ordered.

Mr. ROBERT C. BYRD. Mr. President, I ask for the yeas and nays on the motion.

The PRESIDING OFFICER. Is there a sufficient second? There is a sufficient second.

The yeas and nays were ordered.

Mr. ROBERT C. BYRD. Mr. President, I suggest the absence of a quorum.

The PRESIDING OFFICER. The clerk will call the roll.

The assistant legislative clerk proceeded to call the roll.

Mr. ROBERT C. BYRD. Mr. President, I ask unanimous consent that the order for the quorum call be rescinded.

The PRESIDING OFFICER. Without objection, it is so ordered.

UP AMENDMENT NO. 781

The PRESIDING OFFICER. The Senator from Michigan.

Mr. LEVIN. Mr. President, I send an amendment to the desk and ask for its immediate consideration.

The PRESIDING OFFICER. The amendment will be stated.

The assistant legislative clerk read as follows:

The Senator from Michigan (Mr. Levin) proposes an unprinted amendment numbered 781.

Mr. LEVIN. I ask unanimous consent that further reading of the amendment be dispensed with.

The PRESIDING OFFICER. Without objection, it is so ordered.

The amendment is as follows:

On page 212, line 16, insert the following:

"(16) 'financial institution' means a lending entity which appears on a list pursuant to section 213(a) (3) of P.L. 95-619, or any utility providing financing for the purchase and installation of energy conservation measures pursuant to subtitle E;"

Mr. LEVIN. Mr. President, I ask unanimous consent that the amendment be temporarily laid aside.

The PRESIDING OFFICER. Which amendment is the Senator speaking of? The one he just introduced?

Mr. LEVIN. Yes.

The PRESIDING OFFICER. Without objection, it is so ordered.

UP AMENDMENT NO. 782

Mr. LEVIN. Mr. President, I send an amendment to the desk and ask for its immediate consideration.

The PRESIDING OFFICER. The clerk will state the amendment.

The assistant legislative clerk read as follows:

The Senator from Michigan (Mr. Levin) proposes an unprinted amendment numbered 782.

Mr. LEVIN. Mr. President, I ask unanimous consent that further reading of the amendment be dispensed with.

The PRESIDING OFFICER. Without objection, it is so ordered.

The amendment is as follows:

On page 229, line 13, change the semi-colon to a comma, and insert the following: "which plan shall include a requirement that each utility notify all of its residential customers of the availability of, and method of application for, grants and loans under this title;"

Mr. LEVIN. Mr. President, this amendment would require that utilities notify all of their customers of the availability of Federal loan and grant assistance, for financing conservation investments, and of the procedures for applying for such assistance. The bill already requires the State supplemental plan to include a program for notifying all eligible persons of the Federal assistance which is available, and the most efficient method—at least one of the most efficient—for dissemination of that information is through the utilities, who already are in regular contact with their customers and are required by Public Law 95-619 to distribute other information on a regular basis.

I understand that this amendment is agreeable to the managers of the bill.

Mr. JOHNSTON. Mr. President, this can be complied with by utilities by simply putting a notice on the bill which they send out every month. It is appropriate and helpful, at least for communicating the availability of loans and grants to customers. It improves the bill and we accept the amendment.

Mr. McCLURE. Mr. President, may I direct a question to the distinguished Senator from Michigan?

The Senator has a series of amendments that deal with the availability of financing for these improvements. The first such amendment, which was offered and then set aside, would permit a utility to make that loan to the consumer. The second one that we are discussing now will direct the utility to give notice to their customers of the availability of the program. Is that provision that we are now discussing limited only to the utilities that have such a program under subtitle C of the bill?

Mr. LEVIN. No, Mr. President, all available loans and grants.

Mr. McCLURE. So that all utilities, regardless of whether they are involved in such a program or not, would be required to give that information to their consumers?

Mr. LEVIN. To put that into their bills, as the Senator from Louisiana said, to insert that notice into their bill.

Mr. McCLURE. Mr. President, let me say I am not terribly enthusiastic about requiring a utility to do something that is unrelated to their own business and which they are not involved in. I would have no objection at all if it were confined to those utilities notifying their own customers where they were involved in such a program. But I shall not object to the adoption of the amendment this evening. I really think it ought to be so limited.

Mr. LEVIN. I suggest to the Senator that the wording might be viewed as utilities giving a preference to their own programs. That is the reason why it was made more general.

Mr. McCLURE. I say to the Senator it is not a question of whether they are talking about their own program or not; it is a question of whether or not utilities that have no program are to be required to notify their consumers of programs in which they are not involved. So it is quite the opposite of the suggestion that the Senator from Michigan has made but I shall not object.

Mr. LEVIN. I thank the Senator.

The PRESIDING OFFICER. The question is on agreeing to the amendment.

The amendment was agreed to.

UP AMENDMENT NO. 783

Mr. LEVIN. Mr. President, I send an amendment to the desk and ask for its immediate consideration.

The PRESIDING OFFICER. The clerk will state the amendment.

The assistant legislative clerk read as follows:

The Senator from Michigan (Mr. Levin) proposes an unprinted amendment numbered 783.

Mr. LEVIN. Mr. President, I ask unanimous consent that further reading of the amendment be dispensed with.

The PRESIDING OFFICER. Without objection, it is so ordered.

The amendment is as follows:

On page 229, line 23, add the following:

"(6) a plan for dispersing grants, upon the joint request of a qualified applicant and a contractor listed pursuant to the provisions of section 213(a)(2) of Public Law 95-619 who supplies or installs residential energy conservation measures for such qualified applicant, directly to such contractor who certifies that the grant has been credited in full to the qualified applicant.

Mr. LEVIN. Mr. President, the bill requires that a State supplemental plan for eligibility for Federal grant money must include a plan for dispersing grants to homeowners qualified to receive them. This amendment would allow grants to be dispersed directly to contractors making the conservation improvements, thereby requiring a smaller cash outlay by the homeowner than would be required if he were forced to make the entire payment before being reimbursed by the Government. Direct payments could only be made to contractors, meeting the requirements of the program, and only upon a joint request from the applicant and the contractor.

I believe this amendment has been cleared with both managers.

Mr. JOHNSTON. Mr. President, this is a good amendment. It has a double protection in it because, even though the check may be made jointly to the contractor and the homeowner, it provides that only such contractors as are qualified under the law may be eligible for this benefit, and there are rules provided for on the qualifications of the contractors so we can insure that contractors will be open and above board in the way they treat this money.

In addition, they must certify that the grant has been credited in full to the qualified applicant. This is a double protection.

With those two qualifications and protections, Mr. President, I think this amendment will make it easier to get people into the program. Therefore, we enthusiastically accept the amendment.

Mr. McCLURE. Mr. President, I congratulate the Senator from Michigan for offering this amendment and for the constructive changes that were made in it to guarantee that the benefit of the program would pass through to the consumer. This is a mechanism by which the consumer and a contractor can jointly become involved and, are therefore, more likely to become involved in the program. I think it is a constructive amendment. I am happy to accept it.

The PRESIDING OFFICER. The question is on agreeing to the amendment of the Senator from Michigan.

The amendment (UP No. 783) was agreed to.

Mr. LEVIN. I thank my friends from Idaho and Louisiana.

UP AMENDMENT 781

Mr. President, the amendment which was temporarily laid aside is still going to have to be temporarily laid aside while we work out some additional changes.

Mr. JOHNSTON. Mr. President, I suggest the absence of a quorum.

The PRESIDING OFFICER. The clerk will call the roll.

The legislative clerk proceeded to call the roll.

Mr. LEVIN. Mr. President, I ask unanimous consent that the order for the quorum call be rescinded.

The PRESIDING OFFICER. Without objection, it is so ordered.

Mr. LEVIN. Mr. President, I ask unanimous consent that the amendment which was laid aside before be withdrawn.

The PRESIDING OFFICER. The Senator has the right to withdraw his amendment.

The amendment is withdrawn.

UP AMENDMENT 784

Mr. LEVIN. Mr. President, I send an amendment to the desk and ask for its immediate consideration.

The PRESIDING OFFICER. The amendment will be stated.

The legislative clerk read as follows:

The Senator from Michigan (Mr. Levin) proposes unprinted amendment numbered 784.

Mr. LEVIN. Mr. President, I ask unanimous consent that further reading of the amendment be dispensed with.

The PRESIDING OFFICER. Without objection, it is so ordered.

The amendment is as follows:

On page 212, line 16, insert the following:

"(16) 'financial institution' means a lending entity which appears on a list pursuant to section 213(a)(3) of Public Law 95-619, or any utility providing financing for the purchase and installation of energy conservation measures pursuant to subtitle E;"

On page 219, following line 22, add a new paragraph:

"(14) in the case of a payment to a utility, the utility passes through the value of the subsidy to the loan applicant."

Mr. LEVIN. Mr. President, the bill elsewhere repeals the prohibition on utility financing of conservation investments made by homeowners.

This amendment would permit those utilities which voluntarily decide to embark on such a financing program to pass along loan subsidies to their customers for conservation investments.

This amendment does not require utilities to become so engaged in the finances of conservation investments. But, if they do so, with approval of State public service commissions, of course, the loan subsidy would become available to them for the purpose of passing it along to their customers.

This amendment would not disrupt established relationships between utilities and lenders and would not exclude loan lenders from the financing process because bank subsidies would be available, regardless of the source of the utility's funds.

Mr. President, I believe that this amendment is now approved by the managers.

Mr. JOHNSTON. Mr. President, this modifies the definition of *financial institutions* so as to permit utilities to act as financial institutions

in making subsidized loans. But only in those limited circumstances as Hatfield where, under the public utilities commission, the utility as well as the Governor or other appropriate party designated under State law have all consented to this arrangement.

It also provides that to the extent there is a subsidized loan, the full amount of the subsidy must inure to the benefit of the customer or the lendee and the utility cannot scrape off a half percent, or any other amount, as a fee for servicing the loan.

In that light, Mr. President, I think it may be a mechanism that may be very useful, and may help this program work more easily and more efficiently, to the benefit of the consumer.

We, therefore, accept the amendment and thank the Senator for offering it.

Mr. McCLURE. Mr. President, I thank the Senator from Michigan for having made the changes that were suggested in the discussions about this amendment.

First, to limit it to those that qualify under subtitle (e) of the title and, secondly, to make certain that there was a guaranteed pass-through of the benefits, and that has been added.

I think with those two changes, the amendment is acceptable.

I congratulate the Senator for having offered it.

The PRESIDING OFFICER. The question is on agreeing to the amendment of the Senator from Michigan.

The amendment (UP No. 784) was agreed to.

Mr. LEVIN. I thank my friend for helping in support of the amendment and clarifying and improving it.

UP AMENDMENT NO. 785

(Purpose: To delete the requirement for an energy audit at time of transfer of a residence)

Mr. FORD. Mr. President, I send an amendment to the desk and ask for its immediate consideration.

The PRESIDING OFFICER. The amendment will be stated.

The legislative clerk read as follows:

The Senator from Kentucky (Mr. Ford) for himself, Mr. Wallop, Mr. Roth, and Mr. Durkin, proposes an unprinted amendment numbered 785:

Strike out all beginning on page 272 with line 9 and ending on page 274 with line 21.

Mr. FORD. Mr. President, I ask unanimous consent that the Senator from New Hampshire (Mr. Durkin) be added as a cosponsor.

The PRESIDING OFFICER. Without objection, it is so ordered.

Mr. FORD. Mr. President, the amendment that Senators Wallop, Roth, and I are offering today is to delete section 481 of title IV. Section 481 would require, as a general rule, that energy audits be performed on transfer of residence.

First of all, I would like to commend the sponsor of this provision, the able Senator from Ohio (Mr. Metzenbaum), for the changes that he made in committee with respect to "time of transfer" energy audits. The time for audits, both before and after transfer, was extended. Provisions were made for exemptions by the Secretary of Energy. The requirement for a performance affidavit was deleted because of its possible perjury consequences. A provision was added to attempt to write around the real danger that a loan or transfer might be invalidated and a title clouded by nonperformance.

The able sponsor of the section recognized the "uncertainty" of the section's effects by making these changes. However, uncertainty of effect remains, and for that reason I believe that the section should be struck.

Mr. President, first of all the apparatus is not in place for energy audits. Existing law calls for utilities to provide for audits, but not until final rules and regulations are promulgated and State plans are approved. The DOE has until January 1, 1980 or 6 months after the State plan is approved to issue final rules.

The director of the residential energy conservation program recently stated audits would be available to homeowners "when the program begins operation in the next year or two." He further stated that—

The rules take effect officially next December 6, starting a 15-month timetable of deadlines in which states may choose to draw up their own specific plans for managing the program, subject to department approval.

Evidently Mr. Tanck does not think the audits will be available for every home sold within 1 year of the program's initiation.

Existing law mandates HUD to study residential energy efficiency standards. The subjects to be examined shall include, but not be limited to, mandatory notification to purchasers, and policies to prohibit exchange or sale, of properties which do not conform to such standards.

The study, among other things, is to consider the very uncertainties that section 481 pose—the extent to which such a requirement would affect the real estate, home building, and mortgage banking industries; the effect of such a requirement on availability of credit in the housing industry; and the extent to which the imposition of mandatory Federal requirements would temporarily reduce the number of residential dwellings available for sale and the resulting effect of such mandatory actions on the price of those remaining dwelling units eligible for sale.

The study has not been completed. It is needed before section 481 should be enacted.

Mr. President, I have asked for VA and FHA position papers on the effects of section 481. They have not been forthcoming.

I have been informed that there are almost 4 million housing transfers every year. Now I ask you, who is going to be out there ready to go with 4 million energy audits when we are talking about a program that has not been implemented yet, a program the effects of which are very uncertain?

Utilities do not have the required energy auditors. I know that section 481 recognizes this and limits its provisions to buildings served by a utility offering an audit program. Section 481 actually may impede the program if utilities are reluctant to become involved in home transfer transaction problems—the section could well be counterproductive.

S. 932 recognizes that the apparatus is not in place. Our bill provides for an auditor-training program. This certainly is needed before we begin to impede home transfers.

Mr. President, in summary I can see only uncertainty resulting from section 481, and Heaven knows we have enough uncertainty in the market that governs home transfers. Financial institutions are reluc-

tant to make the loans because the legality of their actions is subject to doubt because of the provisions in other laws. Section 481 would introduce yet another suspect of legality, even with the refinements made in it by its sponsor. Section 481 would result in one of two things—either the seller automatically will put up the \$50 if he does not want an energy audit, thus once again retarding the purpose of energy audits, or the buyer will insist on so many contingencies in the contract that home transfers will be impeded.

Mr. President, I have been fooling around. I was called to come over at 3 o'clock this afternoon. Everyone had amendments. Here I am at 10 o'clock at night, 6 hours later, because I have a gun at my head.

I had a little amendment to start out with, that would not hurt anybody and would help 4 million people, to take off a \$50 bond that had to be placed on every transaction of a real estate sale that did not have an energy audit, and that \$50 bond was on the mortgage or that deed subject to the energy audit within 12 months.

That house could have been sold again, and you would have two bonds on it.

I am not an attorney. My daddy always told me, "A little knowledge of the law is dangerous. Get you a good lawyer and stay with him."

Well, my good lawyers—and there are several of them in this Chamber—have told me that this bond puts a cloud on that transaction, particularly the second.

So, Mr. President, maybe we may have an agreement as to modification of this amendment. I have not received a signal yet as to whether we are going to do it or not, and I got the signal to go ahead and talk.

I do not want to talk very much if we have an agreement. I want to go home. I do not want to filibuster. I want to let these Senators go home to a cold meal and a mad wife. [Laughter.]

Mr. METZENBAUM. I appreciate the cooperative effort of the Senator from Kentucky. I think we do have an agreement, but I am not certain whether it needs a little clarification. If the Senator does not mind, I would like to suggest the absence of a quorum, so that I might speak with him.

Mr. WALLOP. Mr. President, will the Senator withhold that request?

Mr. FORD. I yield to the Senator from Wyoming.

Mr. WALLOP. Mr. President, I ask unanimous consent that the names of Mr. Helms, Mr. Stevens, Mr. Jepsen, and Mr. Schmitt be added as cosponsors of the amendment.

The PRESIDING OFFICER (Mr. Williams). Without objection, it is so ordered.

Mr. WALLOP. I suggest the absence of a quorum.

The PRESIDING OFFICER. The clerk will call the roll.

The legislative clerk proceeded to call the roll.

Mr. FORD. Mr. President, I ask unanimous consent that the order for the quorum call be rescinded.

The PRESIDING OFFICER. Without objection, it is so ordered.

Mr. FORD. Mr. President, I send a modification of my amendment to the desk and ask that the clerk read the modification.

The PRESIDING OFFICER. The modification will be stated.

The legislative clerk read as follows:

AMENDMENT NO. UP 785 (MODIFIED)

The Senator from Kentucky (Mr. Ford) modifies his unprinted amendment numbered 785 as follows:

On Page 274, line 21, insert a new subsection 233(a) which reads as follows.

(e) The provisions of this section shall apply only in major metropolitan areas in excess of 500,000 people and only in each such area upon a certification by the Secretary of Energy that energy audits as defined under Section 215(b)(1)(A) or 217(a)(2)(A) are available in a timely and sufficient manner to all residential buildings served by a public utility offering a utility program or served by a participating home heating supplier.

For the purposes of this subsection (e), "major metropolitan area" means an urban area within a large metropolitan area as those terms are used by the Bureau of the Census in the 1978 Edition of the Statistical Abstract of the United States.

Mr. FORD. Mr. President, I want to be sure it is understood that in modifying my original amendment, I eliminated the language in that original amendment, and it no longer is a part of the proposed amendment.

Mr. JOHNSTON. Mr. President, I congratulate the Senator from Kentucky and the Senator from Ohio for working out this matter, for saving us from long hours of debate, and particularly for saving the floor manager from the very uncomfortable position of having to defend the committee in resisting an amendment with which I partially concurred. I think this is a very good solution. Therefore, we accept the amendment, with gratitude.

Mr. BENTSEN. Mr. President, will the Senator yield?

Mr. JOHNSTON. I yield.

Mr. BENTSEN. Some of us are not part of the deal. We would like to know what was done.

Mr. JOHNSTON. If the Senator would wait outside the door——

Mr. BENTSEN. No. I would like to know, because I am concerned about the amendment. I would like to understand what was done here in the way of a compromise. I favored the Senator's position from the very beginning.

Mr. FORD. We did not want to stay all night because of my amendment. With the cloud that was hanging over this amendment, the leadership made an effort—as well as the chairman of the committee and the floor manager—to work out something that would be acceptable so that we could complete our business tonight.

Mr. JOHNSTON. If the Senator will yield, I will explain what the amendment does.

It makes the requirement of the energy audit applicable only in major metropolitan areas in excess of 500,000 people, and only in such areas where the Secretary certifies that energy audits are available in a timely and sufficient manner to all residential buildings served by a public utility offering a utility program or served by a participating home-heating supplier.

A major metropolitan area is defined in the same way as in the statistical abstract of the census.

Mr. BENTSEN. It means that my friend has taken care of his State.

Mr. FORD. I have taken care of a lot of them. But in the latter part, it means an urban area within a large metropolitan area, as those terms are used by the Bureau of the Census. It extends it a little further.

If the Senator from Texas wants to object to this, it will tickle me to death, because I wanted my other amendment. But in order to try to work things out, this is the closest thing I could get to an agreement.

Mr. BENTSEN. Is this part of the House bill?

Mr. JOHNSTON. It is not part of the House bill.

Mr. BENTSEN. I would hope, then, that the conferees would have the good judgment to drop it.

Mr. WALLOP. Mr. President, I ask unanimous consent that the names of Senators Domenici, Hatch, McClure, and Dole be added as cosponsors of the amendment.

The PRESIDING OFFICER. Without objection, it is so ordered.

Mr. WALLOP. Mr. President, as an original cosponsor of the original amendment, and a reluctant party to the compromise, I point out that I think we are launched on a course that will provide a greater level of irritation to the average American involved in a home sale transaction than almost anything we could have conceived of, except to have done it to everybody.

We have moved it down to a standard metropolitan statistical district; but, frankly, I think that any semblance of voluntarism that might well have provided the kind of incentive we needed is gone from it.

I agree with the Senator from Texas: I hope there is a clear and substantial look at it on the part of the conferees and perhaps on the part of the House, before they get too overly enthusiastic about this program.

Mr. DOLE. Mr. President, I want to be a cosponsor of the original, not the compromise.

Mr. WALLOP. I assume that is what I have been adding cosponsors to. But the Senator from Kentucky has modified his own amendment, which he is entitled to do.

Mr. FORD. Mr. President, I ask unanimous consent that the names of the junior Senator from Georgia (Mr. Nunn) and the senior Senator from Georgia (Mr. Talmadge) be added as cosponsors of the original amendment.

Mr. BENTSEN. I ask unanimous consent that my name be added as a cosponsor of the original amendment.

The PRESIDING OFFICER. Without objection, it is so ordered.

Mr. JOHNSTON. I hope the Chair will go ahead with the vote on this amendment, before they change their minds.

Mr. WALLOP. All the names the Senator from Wyoming has mentioned are to be cosponsors of the original amendment.

The PRESIDING OFFICER. The question is on agreeing to the amendment, as modified.

The amendment, as modified, was agreed to.

AGRICULTURE, FORESTRY, AND RURAL ENERGY TITLE

Mr. TALMADGE. Mr. President, I am pleased that the language of S. 1775, as modified, has been accepted as an addition to S. 932.

S. 1775 represents the ideas and efforts of many Senators. I am proud of the fact that 35 Members of the Senate joined as cosponsors of the bill. I am particularly pleased that all 18 members of the Committee on Agriculture, Nutrition, and Forestry joined me in introducing and developing this legislation.

Mr. President, I especially want to compliment and commend the Senator from North Carolina, Mr. Helms, the ranking minority member of our committee, for his support and guidance in this legislation. He contributed in a major way to the development of the bill and to its acceptance here on the floor. Once again, Senator Helms has demonstrated his total commitment to the welfare of American agriculture and his dedication to the goal of achieving energy independence for the American farmer.

I also wish to commend the Senator from South Dakota, Mr. McGovern, for his unstinting efforts to develop a national energy program focusing on alcohol production from agricultural commodities and waste residues. He has never lost sight of what this can mean to the family farms of America. He has performed a yeoman service in a great cause.

I again want to thank the Senator from Washington, Mr. Jackson, the chairman of the Committee on Energy and Natural Resources, and the Senator from Oregon, Mr. Hatfield, the ranking minority member of that committee, for their cooperation and support. Also, I am grateful to the Senator from Louisiana, Mr. Johnston, and the Senator from Idaho, Mr. McClure, for accepting our amendment.

Finally, Mr. President, I want to thank the Senator from Maine, Mr. Muskie, and the Senator from Oklahoma, Mr. Bellmon, for their assistance in clearing up any questions the Budget Committee had concerning the financing of the programs authorized by the agriculture, forestry, and rural energy amendment.

Mr. PRESSLER. Mr. President, I rise in support of S. 932 "The Energy Security Act." It pays substantial attention to the development of gasohol. I do not like some of the spending levels in this bill, but we have done nothing up to this point. It is time for some action.

I have studied and worked on gasohol, ethynol and methanol during my 5 years in Congress. In fact one of the first bills I sponsored upon coming to Congress in 1975 was to stimulate the production of alcofuels.

In titles I, II, and III of this bill there is potentially \$6.45 billion in this bill for gasohol and alcofuels. This is a step forward. Now we must be certain that the agencies properly administer these programs.

Recently I discovered that the Department of Energy does not have readily available plans to build gasohol stills. We need to have research and development so that individuals, cooperatives, and corporations can build gasohol stills. The great oil companies do not need to control this—it can be controlled by entrepreneurs at every level.

The President must instruct his agencies and departments to spend this money in a fashion as to ultimately have free enterprise develop an abundant supply of energy for our Nation.

TITLE V

Mr. CHURCH. Mr. President, I am happy to support title V of S. 932 as reported by the Energy Committee, which contains a number of amendments which will help speed the development of our vast geothermal resources. The amendments I have proposed in title V are from the "Omnibus Geothermal Commercialization Act of 1979," S. 1288, introduced by myself and Senator Durkin.

The title before the Senate contains provisions from the bill and S. 1330, introduced by Senator McClure:

First. Reservoir confirmation loans, convertible to grants;

Second. An amendment to the geothermal loan guarantee program, increasing to 90 percent the amount which may be covered by a Government loan guarantee;

Third. A reservoir insurance program;

Fourth. Loans for feasibility studies of geothermal reservoirs;

Fifth. An extension of the geothermal loan guarantee program;

Sixth. Authority for other specified agencies to use money from the Geothermal Resources Development Fund for loan programs in those agencies;

Seventh. A provision to require that information utilized in the preparation of one EIS will not be questioned subsequently in another EIS, as part of the application for a loan guarantee;

Eighth. A provision requiring the Secretary of Energy to establish expedited procedures for handling applications for loan guarantees;

Ninth. Provisions mandating research and development programs in geopressured methane, hot dryrock systems, and environmental control technology; and

Tenth. A requirement to utilize geothermal wherever possible in Federal buildings.

After 8 months of discussion with industry, State and local energy officials and the Department of Energy, it has become clear to me that drilling risks would be sufficiently lowered if forgivable loans for drilling exploration and confirmation wells were made available at reasonable terms to the drilling industry.

My intention in establishing this loan program is not to remove all risk. Clearly, geothermal developers stand to gain much by finding a viable reservoir, and they should be expected to share significantly in the risk. On the other hand, the very low number of wells drilled to date clearly demonstrates the need for the Government to also share the risk. I have therefore, set the loans at 50 percent of project costs. I believe that this percentage is sufficiently low to stop wildcat drilling which would waste the taxpayers' money and most likely would not lead to the confirmation of major new reservoirs, and yet it is sufficiently high to entice a rapid expansion in much needed drilling activity.

In the area of space heating or cooling and process heat from geothermal resources, this title will allow reservoir confirmation loans up to 90 percent of the project costs. This is a new and exciting area for the application of geothermal resources, which has not yet been fully investigated. The people who will be utilizing geothermal resources will have to be on-site users, as opposed to electrical generation systems for long distance transmission. Therefore, the economics are quite different from the higher temperature projects. In order to give more incentive to the discovery and utilization of this valuable, lower temperature resource, I believe that a higher percentage is necessary.

In addition, I have also proposed in this title an amendment to the geothermal loan guarantee program already in existence. This would also provide a 90-percent assumption of risk for a geothermal project which is to be used for space heating or cooling, or for process heat. Once again, the infancy of this industry and the different financial

characteristics involved justify the increased share of the risks on the part of the Federal Government.

The authorization for this program and for other programs are made to the Geothermal Resources Development Fund. Depositing all appropriated amounts into this fund will serve a valuable function by assuring investors that the Government will be able to quickly respond to any liability which may occur due to the guarantee and loan programs which are established pursuant to this title. The amounts authorized are the recommended levels of funding which should cover the costs associated with each program.

I urge my colleagues to adopt this title.

Mr. LEVIN. Mr. President, I ask unanimous consent that my name be added as a cosponsor of UP amendment No. 763 by the Senator from Massachusetts (Mr. Tsongas).

The PRESIDING OFFICER. Without objection, it is so ordered.

Are there further amendments?

Mr. JOHNSTON. Mr. President, I hope we are ready for final passage. Is there a further amendment?

The PRESIDING OFFICER. Are there further amendments?

Mr. Metzenbaum addressed the Chair.

The PRESIDING OFFICER. The question is on agreeing to the amendment in the nature of a substitute by the Committee on Banking, Housing, and Urban Affairs.

Mr. JOHNSTON. Mr. President, I move that we reject the substitute from the Committee on Banking, Housing, and Urban Affairs, and concur in the House amendments with an amendment in the nature of a substitute.

The PRESIDING OFFICER. That is not in order. It is coupling.

The first question is on the amendment that is first stated, which is the Banking substitute.

Mr. JOHNSTON. Then it would be appropriate, I believe, in view of the previous actions for us to reject that amendment. Am I correct?

The PRESIDING OFFICER. That is the option before the Senate.

Mr. JACKSON. Vote.

The PRESIDING OFFICER. The question is on agreeing to the amendment in the nature of a substitute.

(Putting the question.)

The amendment in the nature of a substitute was rejected.

Mr. JOHNSTON. Mr. President, I move that the Senate concur in the House amendments with an amendment in the nature of a substitute.

The PRESIDING OFFICER. The question is on agreeing to the motion of the Senator from Louisiana to concur in the House amendments with an amendment in the nature of a substitute.

On this question, the yeas and nays have been ordered, and the clerk will call the roll.

The legislative clerk called the roll.

Mr. STEVENS. Mr. President, I have supported this bill throughout its consideration, but we have an absent Member, the Senator from South Carolina, who wishes to be recorded in favor of the bill.

Although I would normally vote in favor of this bill, in this instance I am going to announce a pair with the Senator from South Carolina (Mr. Thurmond). If he were present, he would vote "aye."

I would vote "nay" under these circumstances, and I withhold my vote.

Mr. CRANSTON. I announce that the Senator from Nevada (Mr. Cannon), the Senator from Arizona (Mr. DeConcini), the Senator from Massachusetts (Mr. Kennedy), the Senator from Connecticut (Mr. Ribicoff), the Senator from Tennessee (Mr. Sasser), the Senator from Indiana (Mr. Bayh), the Senator from Arkansas (Mr. Bumpers), the Senator from Alaska (Mr. Gravel), the Senator from Arkansas (Mr. Pryor), and the Senator from Illinois (Mr. Stevenson) are necessarily absent.

I also announce that the Senator from Delaware (Mr. Biden) is absent because of illness.

I further announce that, if present and voting, the Senator from Indiana (Mr. Bayh), the Senator from Arizona (Mr. DeConcini), and the Senator from Connecticut (Mr. Ribicoff) would each vote "yea."

Mr. STEVENS. I announce that the Senator from Tennessee (Mr. Baker), the Senator from Maine (Mr. Cohen), the Senator from Arizona (Mr. Goldwater), and the Senator from South Carolina (Mr. Thurmond) are necessarily absent.

The PRESIDING OFFICER. Are there other Senators in the Chamber wishing to vote?

The result was announced—yeas 65, nays 19, as follows:

[Rollcall Vote No. 396 Leg.]

YEAS—65

Bellmon	Hayakawa	Nelson
Bentsen	Heflin	Nunn
Boren	Heinz	Packwood
Bradley	Hollings	Pell
Burdick	Huddleston	Percy
Byrd, Harry F., Jr.	Inouye	Pressler
Byrd, Robert C.	Jackson	Randolph
Chafee	Javits	Riegle
Chiles	Johnston	Roth
Church	Leahy	Sarbanes
Cranston	Levin	Schweiker
Culver	Long	Stafford
Danforth	Magnuson	Stennis
Domenici	Mathias	Stewart
Durenberger	Matsunaga	Stone
Durkin	McClure	Talmadge
Eagleton	McGovern	Tsongas
Exon	Melcher	Warner
Ford	Metzenbaum	Williams
Glenn	Morgan	Young
Hart	Moynihan	Zorinsky
Hatfield	Muskie	

NAYS—19

Armstrong	Helms	Schmitt
Baucus	Humphrey	Simpson
Boschwitz	Jepsen	Tower
Cochran	Kassebaum	Wallop
Dole	Laxalt	Welcker
Garn	Lugar	
Hatch	Proxmire	

PRESENT AND GIVING A LIVE PAIR, AS PREVIOUSLY RECORDED—1

Stevens, against.

NOT VOTING—15

Baker
Bayh
Biden
Bumpers
Cannon

Cohen
DeConcini
Goldwater
Gravel
Kennedy

Pryor
Ribicoff
Sasser
Stevenson
Thurmond

So the motion to concur was agreed to.

The title was amended so as to read :

An Act to extend the Defense Production Act of 1950, as amended, and for other purposes.

The PRESIDING OFFICER. The Senator from West Virginia.

Mr. ROBERT C. BYRD. Mr. President, the distinguished Senator from Florida (Mr. Chiles) had planned to call up an amendment, and through inadvertence, the final vote occurred before the Senator had an opportunity to call up his amendment. I believe I am stating the situation correctly, and I will say that the manager of the bill and the ranking minority member were aware of this, but I must say that the Senate has considered 47 unprinted amendments today, and in the course of all this the Chiles amendment was overlooked.

With the concurrence of the manager and the ranking minority member, and out of fairness to Mr. Chiles, I ask unanimous consent that the measure be returned to the message from the House being before the Senate, that the Senator from Florida be permitted to call up his amendment, that no amendments to that amendment be in order, that there be 2 minutes on the amendment, and then that, upon the disposition of the amendment, the measure be considered as having been voted up as amended further, and a motion to reconsider laid on the table.

Mr. STEVENS. Mr. President, reserving the right to object, and I shall not object, it is my understanding that this amendment, incorporating the sunshine law, is limited solely to title I. Is that correct?

Mr. ROBERT C. BYRD. That is correct.

Mr. STEVENS. And it would extend to just the Energy Security Corporation and no farther; is that correct?

Mr. JOHNSTON. That is correct.

Mr. STEVENS. I have no objection.

The PRESIDING OFFICER. Is there objection to the request of the Senator from West Virginia? Without objection, it is so ordered.

The Senator from Florida.

UP AMENDMENT NO. 786

(Purpose: To subject the Synthetic Fuels Corporation to the provisions of 5 U.S.C. 552(b))

Mr. CHILES. Mr. President, I send to the desk an amendment and ask for its consideration.

The PRESIDING OFFICER. The amendment will be stated.

The legislative clerk read as follows:

The Senator from Florida (Mr. Chiles) proposes an unprinted amendment numbered 786:

On page 70, line 21—

Mr. CHILES. Mr. President, I ask unanimous consent that further reading of the amendment be dispensed with.

The **PRESIDING OFFICER**. Without objection, it is so ordered.
The amendment is as follows:

On page 70, line 21, delete everything after "(f)" through page 71, line 17; insert the following in lieu thereof:

"The provisions of section 552b of Title 5 of the United States Code shall apply to the Corporation notwithstanding any other provision of law."

Mr. CHILES. Mr. President, I think the purpose of the amendment has been expressed accurately by the Senator from Alaska. It does apply the sunshine provisions that are in the general law now to title I, which would be to the Energy Security Corporation itself.

Mr. President, this amendment would place the Board of Directors of the Synthetic Fuels Corporation under the provisions of the Government in the Sunshine Act.

The Board of Directors will be a collegial body composed of five voting members appointed by the President with the advice and consent of the Senate, and three nonvoting members. As such, the board would statutorily fall within the definition of "agency" contained in the Sunshine Act and thus be fully subject to the act's provisions.

Subsection (f) section 112 of S. 932, however, removes the Board from the coverage under the Sunshine Act. The provision for open meetings contained in subsection (f) is significantly more limited than the provisions of the Sunshine Act. For example, it fails to provide:

First, the procedures for closing a meeting; second, the same carefully drawn, specific exemptions to the open meeting requirement; third, the requirement for a week's public notice, absent a need for earlier action; fourth, maintenance of transcripts or recordings of closed meetings; fifth, procedures for promptly releasing transcripts, recordings or minutes to the public; and sixth, of great significance, S. 932 fails to provide the presumption of openness contained in the Sunshine Act.

The Sunshine Act was enacted by Congress more than 3 years ago as our firm commitment to open Government. It declares that the public has a right to the fullest practicable information regarding the decisionmaking process of the Federal Government. It clearly expresses as our national policy that the public is entitled to observe and be fully informed on what the Federal agencies are doing, how they operate, and equally important, why they make the decisions they do.

Sunshine's primary objective is to make government more accountable and responsive to the people it serves. The first amendment of the Constitution embodies the profound national commitment to the principle that debate on public issues should be uninhibited, robust, and wide open. To accomplish this, the public must know what government is doing and how it is conducting the public's business.

I can think of no other public issue that our citizens have more of an interest in right now than energy. In recent months, with gas lines, rising fuel costs, and the ongoing public controversy over nuclear energy, the public has become keenly aware of our serious energy situation. Energy is an issue that directly affects each and every member of the public in his or her everyday life. Moreover, it has a direct impact on our Nation's current and future economic condition, on the economic condition of every person in this country.

The public's current confidence level in government and its ability to effectively deal with the energy situation is rather low. The need for broad public access to information on the Government decisions being made for the public on energy supplies and alternative sources is critical. It is important for the public to have an opportunity to be fully informed and to better understand government actions. This is especially true with respect to energy-related decisions. The citizens need to understand the reasons for our energy actions before they will be willing to accept our judgments and comply with them.

I understand that S. 932 contains an abridged open meeting provision. It fails, however, to place the necessary emphasis on openness and access to information. It contains no presumption of openness, nor does it carefully restrict and regulate closing.

I also understand that there is occasionally a need to exempt certain meetings, due to their sensitive nature, from the open meeting requirement. There is also a need for flexibility in other aspects, such as public notice. I strongly feel that the Sunshine Act has adequately taken care of all of the reasonable legitimate problems that may arise with respect to the Board's activities. We must keep in mind that several agencies which deal with sensitive matters, such as the Federal Reserve Board, the Securities and Exchange Commission, and the Nuclear Regulatory Commission, are covered by the Sunshine Act and have operated under it for nearly 3 years.

The provision in S. 932 is a step backward for open Government. A number of the provisions already in the Sunshine Act assure that the board of directors will be able to conduct its business, with efficiency and discretion. There are 10 exemptions in the Sunshine Act which allow for an agency to close meetings of a sensitive nature.

For example, the Sunshine Act now contains the following provisions to meet any objections raised with respect to the activities of the Corporation:

First. Exemption 4 provides that a meeting may be closed to avoid disclosure of trade secrets and commercial or financial information.

Second. Exemption 6 provides that a meeting may be closed to avoid disclosure of information of a personal nature where disclosure of information would constitute an unwarranted invasion of personal privacy.

Third. Exemption 9 allows an agency to close a meeting to avoid premature disclosure of information which could lead to significant financial speculation or significantly endanger the stability of any financial institution. Exemption 9 also allows closing a meeting if premature disclosure is likely to significantly frustrate implementation of a proposed agency action.

Fourth. Section (e)(1) of the act allows for flexibility in the requirement for a week's advance notice to the public. Any fear of time delays due to Sunshine is without basis because flexibility is built into the Sunshine Act.

Fifth. Section (d)(4) allows an agency, a majority of whose meetings may be closed pursuant to exemptions 4, 8, 9a or 10, to provide by regulation for expedited closing. This category of meetings may also be exempt from certain other procedural requirements, such as maintenance of a transcript. It is required, however, that detailed minutes be kept of meetings exempt from the open meeting requirement under exemptions 4, 8, 9a, or 10.

Sixth. Although a transcript of recording is required in the case of a closed meeting under all exemptions except 4, 8, 9a or 10, the agency can withhold portions of the transcript or recording if they may be withheld under one of the 10 exemptions from the open meeting requirement.

The effect of these provisions is to let the board of director close any meeting it must close due to particularly sensitive subject matter. Many of the meetings the Corporation may close will deal with matters which can subsequently be made public. The current abridged provision in S. 932 does not require that a transcript or recording be maintained and the public may unnecessarily be denied access to much information about the Corporation and its thinking and actions. The experience with the Federal Reserve Board and other similar agencies indicates that the board will be able to operate efficiently and effectively within the provisions of the Sunshine Act.

With the Sunshine Act, Congress has taken every reasonable step to accommodate any problems that the board of directors may experience. After almost 3 years of experience of agencies operating in the Sunshine, it is clear that it does not hinder an agency with regard to any sensitive matters it may have to deal with.

The Corporation as run by the board of directors will be making important decisions which will impact everyone in America. It will have significant authority and responsibilities directly relating to the welfare of our Nation and its economy. In view of this, I do not think it should be treated differently and allowed to operate without the safeguards contained in the Sunshine Act.

I do not think that any agency should be exempted from any of the specific provisions in the Sunshine Act, which are designed to foster openness and disclosure, while allowing for information to be withheld when necessary.

For these reasons, I am offering an amendment to S. 932 to bring the Corporation's board within the Sunshine Act and thus open it up to the public.

Mr. JOHNSTON. Mr. President, the committee dealt at some length and in some detail with the subject matter of the so-called sunshine legislation, feeling that it was necessary to have the negotiations of the Corporation with private companies in camera, because of the obviously private nature of those negotiations.

However, in consultation with the Senator from Florida, we have found that the Sunshine Act actually permits all those things we spelled out in detail in the bill; so, in effect what we have done in the bill was to repeat the provisions of the sunshine law as interpreted.

We do not want to do that unless it is necessary, because we understand the necessity of preserving the sunshine law and not having a new one written for every law we pass. So in that spirit, Mr. President, we will accept the amendment.

Mr. DOMENICI. Mr. President, I want to say to the Senator from Florida that I personally apologize. I knew he had an amendment, and somehow during the day I thought maybe it had been taken care of, and it slipped my mind.

Mr. CHILES. I certainly accept that, and I also thank you for your courtesy, and the majority leader for his. I have been on the floor all day. I have put my name on every list that came up to have an amend-

ment, and I was waiting for the rollcall on the Ford amendment to occur and then demand my time on the floor, and I found that the rollcall on the Ford amendment was actually on the final passage of the bill. So I left the floor 5 minutes too early, I guess, before they worked out the Ford amendment.

The PRESIDING OFFICER. The question is on agreeing to the amendment of the Senator from Florida.

The amendment (UP No. 786) was agreed to.

Mr. ROBERT C. BYRD. Mr. President am I correct in stating that the motion made by Mr. Johnston earlier has been voted up by virtue of the rollcall, and that the motion to reconsider has been laid on the table?

The PRESIDING OFFICER. The Senator is correct.

Mr. JOHNSTON. I ask unanimous consent that S. 932, as passed by the Senate, be printed, and that 1,000 copies be made available to the Committee on Energy and Natural Resources.

The PRESIDING OFFICER. Without objection, it is so ordered.

Mr. ROBERT C. BYRD. Mr. President, I made a statement earlier commending the managers of the bill, so I will not repeat that statement now. I do commend them and personally thank them.

Mr. JOHNSTON. Mr. President, I want to thank the staff of the Committee on Energy and Natural Resources. I will not name them all: Dan Dreyfus, Dick Grundy, Pete Smith—I was trying to think of all the majority members and particularly the minority members who have been so helpful to us: Chuck Trabandt—would the Senator from New Mexico name all the rest of them?

Mr. DOMENICI. Dave Swanson, Steve Hickok.

Mr. McCLURE. Mr. President, I hope the Senator would include in that some members of my own staff: Frank Cushing and Ron Shiflett.

Mr. JOHNSTON. And the members of my staff, as well.

Mr. President, this has been a monumental task for members of the staff of both the majority and the minority. It has been an unusual bipartisan effort.

The Senator from New Mexico has been outstanding in his management of the bill for the minority, as he always is. And I do not think we would have lost the one amendment we did lose today if he had not sneaked off the floor to entertain some New Mexicans. Next time, we will chain him to his desk so that we will insure that we win on all the amendments.

The Senator from Idaho (Mr. McClure), as usual, has added a great deal, as well as all members of the majority and the minority of the Committee on Energy and Natural Resources. We are grateful to the Members of the Senate for endorsing the legislation as promulgated. And I can say that the legislation retains all of the essential elements and is only improved by the floor action today and on previous days.

Mr. DOMENICI. Mr. President, let me just say that I am most appreciative of the kind remarks that my good friend from Louisiana had not only for me but for our staff and for our other minority Senators who have helped.

I would say that the truth about the amendment we lost is not that I left the floor, but rather that I just disagreed with the Senator from Louisiana, and so he lost. He did not want to say it that way, but that *is the truth* of the matter; and we want the record to be truthful.

Senator McClure has taught me that since I first came here. We have been truthful in the record.

Mr. McCLURE. Mr. President, since my name has been used, I wonder if the Senator will yield.

Mr. DOMENICI. I am pleased to yield to the Senator from Idaho.

Mr. McCLURE. I obviously have failed in that effort, and I think the last few remarks bore the truth of my comment.

Mr. President, I think we should also thank the leadership and the other staff of the Senate for having accommodated, through rather unusual and difficult circumstances, the unusual number of staff who were present on the floor. I do appreciate that accommodation. It was sometimes difficult, but we had many different subjects and the staff responsibility was divided among subjects. We could not tell when we were shifting from one area of the bill to another, in spite of the good efforts of the majority leader earlier to get some order in that. That made it necessary for us to have an unusual number of staff assistants here on the floor at any one time. I do appreciate the willingness of the rest of the staff of the Senate to accommodate that requirement on our part.

Mr. ROBERT C. BYRD. Mr. President, I thank the distinguished Senator for his comments with respect to the leadership.

May I express my appreciation to the distinguished acting Republican leader who, as usual, has been most cooperative, understanding, and helpful.

Mr. President, I must say again that the managers of the bill are to be highly commended. This was a bill which was supposed to have taken a long time. But, as Mr. Jackson said many days and weeks ago, the time that was being spent in committee on this bill was going to be helpful when the bill came to the floor. And he proved to be right again.

Mr. DOMENICI. Mr. President, will the distinguished Senator yield 1 minute?

Mr. ROBERT C. BYRD. I yield.

Mr. DOMENICI. I wanted to commend one other member of the staff, of my staff, Steve Bell. I remember when we were not serious about using the corporate entity and well before the President announced that he wanted to use this as a vehicle. I am very pleased that his work yielded much of the framework from whence this Corporation came.

I also want to say that when it got down to the real push and shove of keeping the corporate entity or moving to a lesser approach, we could not have won this without the help of the distinguished majority leader. For those of us committed to that proposition, we thank him for his help and his remarks on the floor. We only hope that this will yield something significant and good for the people of our country.

Mr. JOHNSTON. Mr. President, I associate myself with those remarks. The leadership of the majority leader is so stalwart and so often that sometimes we neglect to say it. I should have said that first of all because we could not have passed this bill without his outstanding leadership. I thank him and I know the Senate does.

Mr. ROBERT C. BYRD. I thank the distinguished Senators.

I yield to the distinguished minority leader.

Mr. STEVENS. Mr. President, being from Alaska, I understand the sunshine rule does not apply in here on the floor of the Senate, but I

think it is appropriate that I offer the last piece of sort of the midnight sunshine and commend all parties by presenting my statement for the Record at this point.

Mr. President, the synthetic fuels bill will go a long way in helping to make this country more energy self-sufficient. I realize many Members of the Senate are not completely happy about investing the amount of money we on the Energy Committee have recommended. Yet, in the end, I think it will have proven itself a wise investment in meeting our future energy needs.

It is my opinion that this bill represents a good compromise as a result of the amendment by our chairman, Senator Jackson, and others on the committee. The Congress has the power to OK the final go-ahead, and the bill insures a role for the Congress to play in monitoring the progress of the program.

I want to commend Senators Hatfield and Domenici for their part in forging this complicated and controversial measure through the Senate.

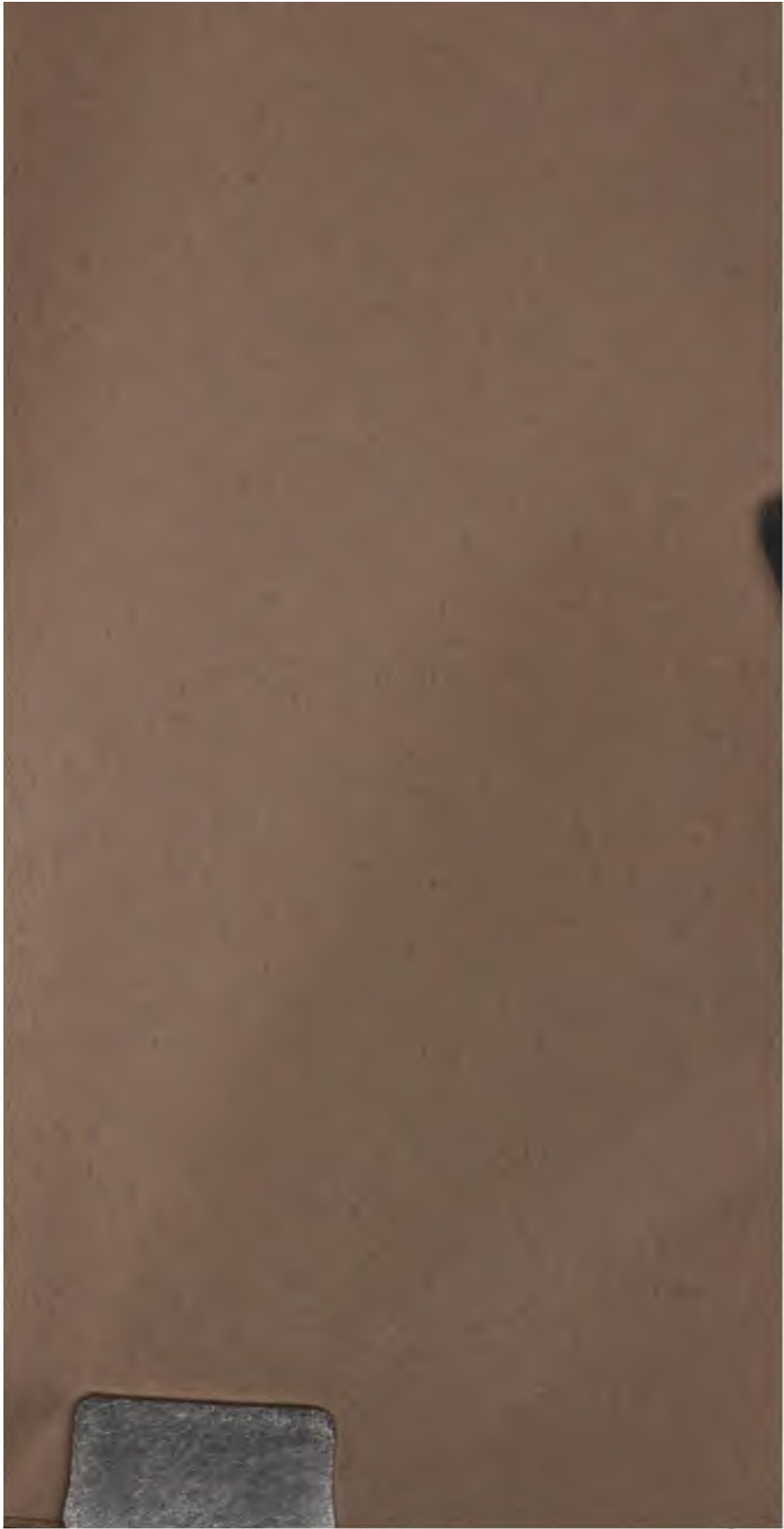
Senator Domenici, in particular, deserves credit for promoting the program through his cogent arguments in support of the legislation. His contribution was a necessary element toward successful passage of the synthetic fuels bill and, on behalf of the minority, I thank him for his efforts.

I also appreciate the work of the distinguished Senator from Louisiana (Mr. Johnston) who on behalf of the chairman, has done an outstanding job during consideration of the many amendments proposed to this bill. The majority leader's strong support for this legislation, as well as the impassioned speech by Senator Jackson, was the key to getting the bill passed in its final form.

Again, this bill represents the sincerity of the efforts of the Senate to deal with the problems this Nation faces with respect to our energy policy, and I commend the Senators mentioned for their important roles in achieving this end.

Let me also express my appreciation to staff members Chuck Tra-bandt, Dave Swanson and Steve Hickok for their fine assistance to all Members on our side of the aisle.

Mr. President, I would add that I think we should commend Senators Wallop and Ford for their last-minute concession in agreeing to the modification of their amendment which I believe terminated the consideration of this bill and led to its final approval.



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